STATE OF CALIFORNIA MEETING OF THE

CALIFORNIA INSPECTION & MAINTENANCE REVIEW COMMITTEE

Wednesday, October 26, 2005

California Air Resources Board

1001 I Street, Sierra Room

Sacramento, California

1	MEMBERS PRESENT:
2	VICTOR WEISSER, Chairman
3	JUDE LAMARE
4	DENNIS DECOTA
5	JEFFREY WILLIAMS
6	ROGER NICKEY
7	BRUCE HOTCHKISS
8	ROBERT PEARMAN
9	MEMBERS ABSENT:
10	CHUCK FRYXELL
11	TYRONE BUCKLEY
12	GIDEON KRACOV
13	PAUL ARNEY
14	ALSO PRESENT:
15	ROCKY CARLISLE, Executive Officer
16	JANET BAKER, Administrative Staff
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PROCEEDINGS

CHAIR WEISSER: Okay, folks. I think we're going to have to, by necessity, get started. And we'll get started, as you can see, without a quorum. We need seven people in order for us to take any action, so we'll defer items that will require action until the arrival of our missing, but anticipated members. Let me introduce myself. My name is Vic Weisser. I'm the Chair of the Committee. And then I'll ask the rest of the Committee to just introduce themselves briefly. We'll start from the far right. Our bearded gentleman will start first.

MEMBER HOTCHKISS: Bruce Hotchkiss, and I would apologize for not being here for the last two months, but I have been otherwise engaged. I am glad to be back.

MEMBER WILLIAMS: Jeffrey Williams.

MEMBER HISSERICH: John Hisserich.

MEMBER LAMARE: Jude Lamare.

MEMBER NICKEY: Roger Nickey.

CHAIR WEISSER: Roger, a special welcome to you. I wasn't here at the last meeting and I understand that it was ably led by Jude Lamare in my absence.

MEMBER NICKEY: Absolutely.

CHAIR WEISSER: We have a pretty busy agenda today with many, many reports. I'd like to, when we start off though, because we have two new members, Rocky, suggest that next month we bring back those fundamental principles that we adopted two

years ago as to what the purpose of this Committee or it's kind of mission as it's set for itself would be. So I think it would be good for us to chat with that with our new members, see if they have any ideas or suggestions in terms of modifying them. So could you make sure that's - put it as an agenda item as a review our mission statement, such as it is.

MR. CARLISLE: Will do.

CHAIR WEISSER: Rocky, as you know, we're missing four members that we knew weren't coming. Those are Tyrone Buckley, Chuck Fryxell, Gideon Kracov, Paul Arney. We are expecting both Mr. Pearman and, as I've indicated, Mr. DeCota forthwith. We'll defer, until one of them arrive, the review and approval of the minutes from the past two meetings and just turn directly into our report from the Executive Officer, Rocky.

MR. CARLISLE: Thank you, Mr. Chairman. It's relatively short, which isn't a bad thing, but for the most part I've been working on the preconditioning survey. We have completed sampling the smog check stations around the state. We completed 397 surveys. It took us an additional 260 some odd calls to complete those because we did have some people that preferred to opt out. All in all, the shops were very cooperative. We thought that maybe there would be more dissention, if you will, about collecting some of that data, but most of them were only too happy to do it. Some of them were just too busy to participate and we certainly understand that.

We do have a draft report - (phone disconnecting) thank you, Vince.

We do have a draft report, but it's a very rough draft and Steve and I have not had a chance to actually review it together. He completed that last week. And essentially, it appears that most of the technicians are actually conscientious about warming up the vehicles. The question is how much inconsistency is there, and there appears to be a lot. So maybe that's contributing to the issue of a vehicle failing at one station, then passing in another and visa versa. So we're going to have a report for the Committee next month in November, which is November 22^{nd} , the next meeting.

And I should mention too that Chris Ervine brought up an issue with when we were talking about people not knowing whether or not a vehicle had passed previously - passed or failed, rather. And I was in error because I wasn't aware that the EIS, they would actually get a message on the emissions inspection analyzer if the vehicle had previously failed in the last 90 days. However, not all technicians either use that or are aware of the vehicle failure prior to actually testing the vehicle. So I just wanted to correct that statement because we did have some discussion back in August, I think it was.

The other issue was I'd gone down to L.A. last week and spent part of the day with Dr. Don Steadman (phonetic) with regard to remote sensing. John Hisserich was there, as was Bob

Pearman, and it was an interesting exercise, if you will. We do have some video that I'll present again next month in a little presentation about remote sensing. I was hoping to have the remote sensing report, but that, as I understand it, is not ready as yet.

CHAIR WEISSER: Are there any particular comments that you want to make to explain what you mean by that interesting term interesting? Whenever I use that it means uh - oh, there are some challenges.

MR. CARLISLE: No way. I don't think it was. I just think it was fascinating. I haven't been involved in remote sensing and so just watching the cars as they went through the remote sensing trap it appeared that one out of a hundred was a very high emitter. And a couple of times - you know - sometimes you'd like to sit and try to guess which vehicle that is and out of boredom we did that a couple of times as they were coming up the ramp, and more often than not I think we were wrong because just from the outside appearance you'd say geez, I'll bet that's a really high emitter vehicle. But they'd come through clean. And that pretty much concludes my report.

CHAIR WEISSER: Well, Rocky, the survey is something that we've all followed - you know - its progress with interest and it's no surprise to me that you found the station folks very cooperative and responsive and trying to do the right things.

My experience over the years has been very positive. My last

experience was a month ago where I dutifully went to a smog I will only identify it by saying it's a test and repair station in Oakland where I live. Well, I guess I'll go further. It was a Broadway Terrace Union 76 Station and I just want to say - I didn't identify myself, of course, but the folks that are running that station, and in particular a gentleman named Quang Dwong (phonetic) were extraordinarily professional. I asked him some really dumb questions and he responded treating me gingerly as an ignorant consumer, which I am much more often than not. I asked him a little bit about preconditioning and he said, yeah, we will run the engine for a certain number of seconds to ensure it's up to operating speed. When I received the report, he asked me if I wanted to go over it in detail. spent a couple minutes with me going over the stuff. He was terrific and as a representative of the industry, both test and repair and test only, he's the kind of guy you want on your side of the team.

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We now have a quorum. Mr. DeCota has joined us after making his way through the mist and drips from lovely Napa or Sonoma or wherever you were coming from today. So we do have quorum. With a quorum present then, I'd like to move back to the beginning of the agenda and ask for the Committee to review and approve individually the minutes from our past two minutes. We could not - meetings. We could not approve the minutes last month because we lacked a quorum. So the first minutes that I

1 will ask you to review, and if you have reviewed them make a motion for approval, will be from our August meeting. 2 3 I'll move approval of he MALE COMMITTEE MEMBER: minutes of the August 23rd meeting. 4 5 CHAIR WEISSER: Is there a second? 6 MEMBER DECOTA: So moved. 7 CHAIR WEISSER: Mr. DeCota seconds. Is there any 8 discussion of the minutes? Hearing none, all in favor of 9 adopting them please signify by saying aye. 10 MALE COMMITTEE MEMBER: Aye. 11 MALE COMMITTEE MEMBER: Aye. 12 CHAIR WEISSER: Any opposed? Hearing none, they're 13 approved. 14 MEMBER LAMARE: Abstained. CHAIR WEISSER: An abstained from Jude, who was absent 15 16 at the time. 17 MALE COMMITTEE MEMBER: And I will abstain as well as 18 I was absent. 19 CHAIR WEISSER: That still provides five votes and 20 21

since we have a quorum present, that's sufficient. We will now move towards the adoption and approval of the minutes from the meeting of September 27th. So have you all had a chance to review those minutes?

MR. HISSERICH: Yes, I'll make a motion to approve those minutes.

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CHAIR WEISSER: Mr. Hisserich makes such a motion. Is there a second?

MEMBER WILLIAMS: Yes.

CHAIR WEISSER: Mr. Williams seconds. Is there any discussion? Hearing none, I'll ask for those in favor of adopting the minutes to signify by saying aye.

MALE COMMITTEE MEMBER: Aye.

CHAIR WEISSER: Are there any opposed? There's one abstention, that's me. I was not here.

MEMBER DECOTA: Oh, I will abstain.

CHAIR WEISSER: And Mr. DeCota is abstaining.

MEMBER HOTCHKISS: I will, Hotchkiss as well.

CHAIR WEISSER: And Mr. Hotchkiss is abstaining. So we have precisely four votes in favor of adopting the minutes, and that's sufficient. The minutes are hereby adopted. Very good. Dennis, in your absence we went thought the Executive Officer's activity report. Rocky will be standing by after the meeting to review that with you again at your convenience. And we'll move right now into a discussion of the IMRC budget. Rocky?

MR. CARLISLE: This is an issue we discussed last month a little bit. I just reviewed the fact that we have two funding sources. One is the Air Resources Board, which is roughly \$150,000. And BAR, which was \$150,000. And these amounts were agreed to in January of 1999 by a Mr. Keller (phonetic), who at that time was the Chief of the Bureau of

Automotive Repair and Mr. Michael Kenny (phonetic), who was the Executive Officer at ARB.

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In 2000 - (coughing) excuse me. In, I believe it was 2001, the budgets were reduced due to the problems with the state budget and we actually lost a temporary position. So currently the BAR side of the budget is about \$135,000 and the ARB budget is somewhat in a state of flux because things have changed since those originally went into affect. The way it was originally supposed to work was the DCA was essentially going to support our office space, IT, that kind of thing, pay my salary, but now we're housed within the ARB building so they're defraying that They're also defraying postage. So it works out now that with facilities and postage, ARB is contributing about \$12,000 for that. They're also paying for our consultant, Dr. Steve Gould (phonetic). They take care of the meeting rooms, the web cast, the event recording, and they also have a master contract with Sierra Research that we can tap into for some analysis. Probably not a lot, but there is some time on that contract available that I understand that we can use.

The other issue is Jude Lamare brought up the idea of grants last month and I have researched that a little bit. We can, by law, participate in the grant process for grant funding for research. And so I'm going to see about a grant writing class, if you will, because I understand they're very technical in nature before they're submitted, and we'll see about getting

some grant money. So that's pretty much the state of the budget as it sits right now.

CHAIR WEISSER: Let me just start off by asking in terms of this current budget year, we're on track to stay within our means. Is that not so, Rocky?

MR. CARLISLE: Yes, we are.

CHAIR WEISSER: Okay. Has there ever, to your knowledge, been a time where there's been a direct allocation of funds by the legislature to this Committee?

MR. CARLISLE: Not to my knowledge, no. The statute simply says that we will be supported by ARB and BAR.

CHAIR WEISSER: You know - we've heard over the years concerns by the public, and mostly by folks involved in the industry, that our independence is potentially compromised by the fact that we receive money from agencies whose work we're supposed to be independently reviewing. And in fact, early in the country's - the United State's life as a nation, I think there's a fairly famous court case where a Supreme Court Justice said something along the lines of the power to tax is the power to destroy. And we've all heard stories about the notion that - you know - he who has the money or she who has the money is the one who calls the tune. Now, I think you'll be able to find representatives from both the Bureau of Automotive Repair and the Air Resources Board that could only wish they could shut us up at times with money. That's not been the behavior of this

Committee that I've seen either since I've been on it or before I've been on it. But there is a perception issue. However, considering our knowledge of the history, it seems very, very unlikely that this Committee ever will be a recipient from the state of a direct allocation. We're always going to be getting our money through some agency or another. At least that's my expectation. I'm personally not troubled by that.

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What I am troubled by is how do we figure out how much is enough? What's too little? What's too much? And I quess I'd invite some input and advice from members of the Committee as to their sense of whether the amount of funding, both for internal staff and for independent consultants is sufficient. And if not, then I suspect what we need to do is sit down with both the Bureau of Automotive Repair or the Department of Consumer Affairs and the Air Resources Board in order to see if we can negotiate a different amount. I like the notion of trying to identify if there are potential funds outside of the normal state process but - you know - when you're dealing with kind of baseline program issues, we might need to review the structure. So I guess I'm opening up to questions as to whether Committee members feel that we should just enter into a discussion, and this would be a discussion frankly among friends as to whether or not the budget process is providing us with sufficient resources in order to do our work. And if it is, fine. If it's

not, any suggestions as to where we need to buff it up I think would be appreciated. Any comments from anyone? Jude?

MEMBER LAMARE: Well, just a thought. When I suggested that there might be some opportunity in looking for grant funds for research by the Committee, I was also thinking there are maybe topics that the Committee feels, based on public testimony and our evaluation independent of the agencies of how the program's working, that the Committee may feel there are topics that need researched that the agencies do not feel are top priority or not really important to them or significant to their work. And that there may be parties, including nonprofit foundations, the federal government, or other parties to whom those topics would be of interest, that perhaps have a longer term issues and consequences in the implementing the smog check implementing agencies can look at. And that our Committee, as an overview Committee, is removed from the implementation process.

We are not responsible for implementing the program. We have a unique position both within California government, but also because California has the largest smog check program in the world and the most advanced in many ways, that we're uniquely situated and there may be other parties who are concerned and interested and that might be partners with us in research. And we should be open to seeing whether that is the case and what they might have to suggest to us. And if the

agencies are not interested in the topics that we're interested in, that we may have other partners who would come in with independent funding. That was my thought.

CHAIR WEISSER: Well, thank you. I think the notion of looking outside for partners that might be interested in joining us in research is a terrific idea, but I am also reminded of the first cycle of the Committee's report to the legislature after I was appointed. One of the things that we wanted to look at was an audit, like an audit that's been done in the past - an audit of the funds to make sure that they were being properly used.

And we were at breadth of any funding in order for us to be able to engage an auditor. So our review of the funding was frankly limited to a series of calls. And yeah, I think you went to a couple meetings, Rocky, and I did a bunch of phone calls, but we really didn't have the capability of doing an independent audit. We don't have the funding to do that and I know on occasion, once again, it's an issue that the public has raised.

I'm gonna be silent now. I just don't know whether the baseline of the budget provides us with the sort of funding that we need in order to do our job. Dennis?

MEMBER DECOTA: Thank you, Mr. Chairman. Dennis

DeCota. As senior member on the Committee as far as tenure
CHAIR WEISSER: And age.

MEMBER DECOTA: And age, probably. It seems that we have, over the years, been somewhat reactive and not proactive

in order to take and put together a positive future planning of smog check program and how that program affects both public and private partners in this program. And I think it would behoove us to look into having those additional fundings to do demographic studies and understand programs and goals, and set goals that we can work with both agencies to take and have a more active, a more acceptable smog check program. And I believe that's part of our charter, is to do those type of things. We've never had the - really the funding or been able to utilize the funding to do that. But with the Committee makeup as it is today, I think we have a unique opportunity to move forward and be proactive in reducing levels of emissions.

CHAIR WEISSER: Thank you. One of - I'm sorry. One of the challenges that we face, of course, is the timing of the state's budget cycle. My recollection from my years in state government is that by this time budgets have been submitted, at least to the agency level, and they're being reviewed at agency level before going into the Department of Finance and wherever else budgets go for detailed review. So this discussion for the current time may be a bit academic.

But I guess one of the things that I would suggest, and Rocky, I'd like you to perhaps follow up with the full Committee since we're missing so many members, is to send an e-mail out to the Committee members asking if there are ideas that they would like to see pursued by this Committee. And we can use that and

do some legwork to try to figure out what the idea is and what it might cost. And then bring it back at some point in time to the Committee to see whether the idea enjoys the support of multiple Committee members. And at that point we can begin to entertain discussions with the agencies regarding the availability of resources in the current budget year to get something started. And if not, begin the process of developing a rationale for asking for what resources we think are necessary for us to do the job.

So if you could just kind of send something out to the group soliciting issues which they think we should be involved in that currently we're not able to because of funding. I'd make no judgment whatsoever on what Dennis said or what I said in terms of - you know - and it might be desirable to have an independent audit. Let's see what suggestions might come in over the next thirty days from Committee members. And in fact, I will open that up to the public. If the public has any suggestions as to issues that the Committee should look at, get them to Rocky and we'll take a peek at them once again.

MALE COMMITTEE MEMBER: ARB and BAR too.

CHAIR WEISSER: And I'd love ARB and BAR to give us suggestions as to what they think we might want to be focusing on. Now, we're not going to be able to do everything that comes up. We probably won't even be able to do many things that come up, but maybe there's one or two things that might pop up that

will seem rational to a broad spectrum of stakeholders among us.

Did you have a comment, Bruce?

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MEMBER HOTCHKISS: Yeah, I think we could use some more funding. I also wanted to - I think I'm the second longest sitting member up here. And I - you know - this Committee, in the age where people look at government as - you know - we spend way too much, this Committee has been extremely frugal. know - I think we've, especially in recent years have accomplished a lot with very, very little, and I - you know - I don't see a big bump in the budget isn't what people really want to see. But we do need some more money, because I know in the past Ms. Lamare has talked about - you know - studies and we've been kind of hampered in doing things that, like you talked about the audit, and some other consumer studies and things like that because the funds haven't been there. I don't think the Committee's going to change in our tight spending ways, but I think we could have some more money and it would improve the product.

CHAIR WEISSER: Well, I think the - that's the open question, is - you know - do we have things where if we had funds we could kind of add value to what we're doing? The state is facing, now and in the foreseeable future, extraordinarily difficult times with the budget. We're not going to go out on some sort of wild goose hunt, but if there are issues that we think are part and parcel of the statutory charge that this

Committee has, then we need to ask for the resources to do them.

And I would like to acknowledge that Mr. Pearman has arrived, and welcome, made it through the rain. Rocky stands ready following the meeting, Bob, to give you a rundown of the Executive Officer's report. We're just finishing up a discussion on budget.

Any further comments from the Committee? We'll ask for some brief comments from the audience. You'll remember we have a three minute time limit. There'll be an orange light that will go on when you have one minute left and when the three minutes comes, a red light will appear. And shortly thereafter, an electroshock will transmit through your shoes. And Mr. Peters.

MR. PETERS: Chairman and Committee, Charlie Peters (inaudible).

CHAIR WEISSER: Can you hear? Charlie, can you hold on, and can you stop the time for a moment? Could you move the microphone down a little, Charlie? I'm not sure you're speaking into it and is the little red button on there? Could you, Janet, give - Rocky, would you give him some help? Now, would you just speak into it and let's see if we can hear you?

MR. PETERS: Yes. Mr. Chairman?

CHAIR WEISSER: Okay. We're on. So let's go back to the timer. Thank you, Mr. Peters.

MR. PETERS: I'm Charlie Peters, Clean Air

Performance Professionals. We're a coalition of motorists.

Issue number one, Rocky mentioned the issue of the notice to the smog check provider as to whether or not a car previously failed. I will put my little two cent opinion in there that it's been being ignored for well over a decade that I think it's appropriate for that notice to be withheld until such time as all decisions are made as to pass the car. And then at that point the provider should be provided the information that it's previously failed and given the option to review his test or do what he thinks is appropriate. And that a very small segment of those cars should be selected to be reviewed by the state contracted referee or by the Bureau of Automotive Repair.

Item number two, it was mentioned that the contractor, Sierra Research, will have availability to provide research for the Committee. I have had some significant differences of opinion with Sierra Research, clear back to the original Committee. I will state my opinion that I don't believe that that's necessarily a good idea. I believe that should - the Committee should provide itself the ability to have other options other than that. I'm not saying that that's not an appropriate thing for you to do, but I think that you should have additional possibilities.

Item number three, the issue of Committee funding. I think the Committee has a very unique position, as was stated, where

you have the ability to have - it's the only Committee in the state, probably in the country, that has direct access to the governor and the legislature without anybody in between. I think that it would be appropriate to consider the possibility of requesting specific funding for the Committee, which would eliminate perceptions of conflicts because your task, in my perception, is one of evaluating and communicating the very places that are providing the funding. I think that you ought to at least consider the possibility of asking for your own funding to create the best possible perception and outcome of the Committee. So those are the things that were of interest to me.

CHAIR WEISSER: Thank you, Mr. Peters. Please, Bud.

MR. RICE: Good morning. My name is Bud Rice

(phonetic). I'm with Quality Tune-up Shops. Boy, this is a

little more intimate than I'm used to. Hi, everybody. Couple

things, I apologize for being a little bit late, so I missed the

earlier part of the meeting. But I would like to comment

specifically on what was happening when I came in, in terms of

the auditing and that kind of thing.

I guess my comments are it's almost like in bowling where you know what happens because did any pins fall down or not, right? And I guess sometimes I go away from these things wondering if we made any difference or not, quite honestly.

Okay? So I think it might be of some use to have some kind -

I'm going to call it a scoreboard - to have some kind of a scoreboard where you could say, here's what the Committee heard, industry, private citizens, experts in the field. Here's what the Committee's recommendations to the legislature were, and here's what the outcome of that was. Was it accepted? Was it not accepted? Did they accept it with prejudice? Did they not accept? You know - what kinds of things happened as a result of us getting together and having some fun together every so often? Thank you.

CHAIR WEISSER: Thanks. That's a radical idea of having folks actually monitor performance of an agency or an organizational entity, and I for one would volunteer this IMRC as - you know - the first sample in the experiment. No, it's not the first, because if you look at the state budgeting process, each and every state agency has to come up with performance measures. This has been instituted now for about ten years. I don't know how many folks read them, but they're supposed to come up with measures of what are you getting for your tax dollar? And I have no problem with that sort of performance accountability being placed upon the IMRC as to the expenditures of our funding. And indeed, when we check in with the agencies on budget issues we should chat with them about, since we don't have an element of the budget, having an element of the IMRC's activities reported as part of their program

budgets. Scorecard, I kind of like that idea, but thank you. Chris?

MR. WALKER: Mr. Chairman, members of the Committee, Chris Walker (phonetic) on behalf of the Automotive Repair Coalition and the California Service Station Automotive Repair Association. You mentioned in the budget discussion that there was some time left on the Sierra Research contract that could be used by the I and M Review Committee. There was also discussion about the perception of the independence of the Committee with ARB and BAR.

Sierra Research is one of the finest research organizations on the West Coast. There's no question about it. They have some of the best scientists, some of the best staff. No question about it. However, because this Committee is tasked with reviewing ARB and BAR's information in studies and making recommendations independently to the legislature, it would be appropriate that you'd use an independent analyst - a different group than Sierra Research. I'm not besmirching Sierra Research performance or like that. These are true professionals. However, it would be appropriate that you have the resources available to hire an independent company to come in and look at ARB's findings and studies that have been performed by Sierra Research, so.

CHAIR WEISSER: Kinda hard to be able to get an independent review of some work done when you're hiring the person who did the work to do it.

MR. WALKER: Exactly the point.

CHAIR WEISSER: And Sierra, as you said, has done great work. I would contest the concerns Mr. Peters put forward.

They've done some great work over the years, but it's really kind of absurd to ask the - you know - the folks that are doing the work to then do an independent evaluation of how well they did the work.

MR. WALKER: Exactly the point. If in fact, this

Committee is to be independent of both agencies, both bureaus,

both boards reporting directly to legislature, the

recommendations of this Committee, it needs to be reliant upon

independent contractors.

CHAIR WEISSER: So I guess that - thank you very much,
Chris - the purpose in bringing the discussion toward this end
is to just make it clear and put it on the record that as it
stands now, we do not have funding to perform an independent
review of the work. We have been very fortunate with great
support from both BAR and the Department of Consumer Affairs to
give us funding in these incredibly difficult budget times to do
what we have been able to do. But we do not have independent
funding - I mean - funding to go out and hire an independent
consultant to do that type of work, or an auditor or whatever.

Are there any further new comments? Mr. Peters, briefly, please.

MR. PETERS: Thank you, Mr. Chairman. I would like to clarify my opinion about Sierra. I indicated that there were occasions that we had differences of opinion and that was specifically over the issue of test only, as a matter of fact - or contracted test only initially in the initial inspection. I will say that their reports have been as thorough and as good as anybody's I've seen, but my point was I think what the previous speaker said is right on the money. They are of a significant contract to both of the agencies that you're evaluating, so having them evaluate for you is certainly - needs some consideration before you go forward.

CHAIR WEISSER: Thank you, Charlie. That does help clarify it. Okay. We're going to conclude this portion of the discussion by, I'll repeat we're going to send out something to the full Committee asking the Committee to identify areas that they think might be worthwhile for us to be looking at. And it's basically going through a work planning process, what we're going to do. We'll solicit those suggestions also from members of the public and from the agencies. And I particularly would be interested in, from the agencies, getting their perspective on where, if any, places this group of people can add value to the process of managing, overseeing I should say, this important program. I'm wide open for suggestions as to what we might do

to add value. And just give us a - you know - at the next agenda meeting let's have this on just for further discussion. This is not going to be a short-term sort of exercise. It also gives the newer members of the Committee the opportunity to pitch in with kind of new eyes as to what they think we might be doing. So that's what we'll do.

We'll next move to item number six, which is a presentation by Dr. Tom Cahill on particulate matter. PM being perhaps the top priority for the Air Resources Board over the past couple of years, and I believe through the next decade.

MR. CARLISLE: (inaudible).

CHAIR WEISSER: Tom, is this something that we need to duck so that folks can see? Should we get out of the way?

DR. CAHILL: We actually have copies over on the far side of the presentation.

CHAIR WEISSER: Okay. We have them up here on our screen. As long as Dennis turns off playing Nintendo, we can watch it.

DR. CAHILL: I think you're doing just fine.

MR. CARLISLE: Mr. Chairman, I'd like to point out that the slides that you have in the handout are going to be a little bit different than the ones you just gave me about ten minutes ago. So there have been a few modifications.

CHAIR WEISSER: Science changes. Do you want to give an introduction of Dr. Cahill?

MR. CARLISLE: Yes, Dr. Cahill is a researcher at U.C. Davis and he contacted me, or we made contact about a month ago when he published the document that is also available on the table over here for the American Lung Association regarding particulate matter. And while I don't know a lot about Dr. Cahill, it appears he's done significant work in particulate matter research.

DR. CAHILL: Thank you. Thank you very much to the Committee. Yes - the mic on?

MR. CARLISLE: I don't believe so. See if the green light's on.

CHAIR WEISSER: Is there a green -

MR. CARLISLE: On the top of the mic on the platform.

DR. CAHILL: Got it. We're in business. I appreciate the chance to talk to this Committee. As Rocky had mentioned, I've been at this for quite a while and my own area is in fact in physics. And in the early years of the 70's I was deeply involved in the question of the catalytic converter, lead from cars, I wrote the legislation on the self-reduction in gasoline, and so on. And so I was involved with Air Resource Board and Cal Tran's predecessors on the question of highways and the impact on local vicinities, the question of lead removal, and so on.

Since that was all solved by 1978 I moved on to a cleaner climate, shall we say, of Owens and Mona Lake (phonetic), Lake

Tahoe, and so on, and then became the developer and contractor to the National Park Service and the USEPA of the Improved National Air Network, which I then ran for 20 years. Now, the thrust of it was visibility and the question of that turned into things like global climate.

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But around 1994, some very important research came out of Harvard University called a six-city study tying fine particles and human mortality. At about that time I was interested in getting back into this area, so I volunteered with the Lung Association and the Cleaner Air Partnership, Jude Lamare, and became up to speed then in the question of particles and human health. And so that started a ten-year program which led to those documents you see in the side. And by the way, the term I believe, frugal was used up here at some point or other. total cost of the four-year study of the Lung Association was \$16,000, plus a lot of very good volunteer effort. And one of the joys was that working with people who knew what they were doing, and these were volunteers from the Air Resources Board, the local air districts, Department of Health Services, so it's just been a joy to work with this group. They're very knowledgeable people. So anything I do in this regard is really a joint effort. I'm merely the spokesperson.

So getting involved in this area, it was also at the same time I became contracted to the USEPA on the question of ultra fine particles. It was very clear that some animal studies

showed that there was a certain component of the atmospheric aerosol is more dangerous than the rest. And it was also clear to the EPA scientists that the regulations that are promulgated in terms of PM-10 and PM-2.5 mass were not properly addressing the health effects associated with these particles. And so we started a long policy working on the EPA criteria document to try to identify those components, in fact, they need to be more closely monitored, checked, and cared for.

The Air Resources Board started a parallel process leading to their identification of diesel exhaust being 70 percent of all the toxic air contaminant affecting California, which has now been modified up to 85 percent. And then followed by this statement three lines later that the Air Resources Board does not routinely monitor diesel particulate matter. So that sort of dragged me back into the field sort of kicking and screaming and - you know - I breathe this air too.

So the presentation I have is designed to be simply a summary of some of the work I've been doing. Now, we have the great fortunate in the course of my work in global climate, we develop new techniques for analyzing particulate matter at very high sensitivity. Result was we became subcontractor to almost anybody in the United States studying diesel particulate matter. And so I have access then to data, which has not in fact appeared anywhere. Some of it's refereed, some of it's not. And so we tend to have an early warning of what's coming up.

I'd like to have this Committee have an idea of things that will be appearing in the refereed literature in the next six months, next year, and so on as they might modify the question of does California in fact, need to look at particle emissions from cars and trucks?

This is the result of the first study we did for the Air

Res - for the Lung Association. We looked simply at the

particulate matter in California and see if the same effects

that we're seeing in the six-city study in the East happen in

California. My personal preconception was it would not happen.

And the reason was because the aerosols are so, so different.

The worst site in the six-city study was Charleston, West Virginia and I've been there. You don't want to breathe. You bring bottled air along with bottled water. It's an industrial section deep in the valley and so on, and I couldn't conceive that the Sacramento valley, with its very different sources and a more rural ambiance, had the same affects. Yet, to my great surprise, we found the effects are almost identical going from Shasta in the North to Kern County in the South, that the rate of ascemic (phonetic) heart disease death rate is closely tied to the amount of particulate matter in the atmosphere.

CHAIR WEISSER: So just a question for clarification.

Ascemic means what?

DR. CAHILL: Oh, sorry. Ascemic heart disease is a situation where the human heart grows in size, becomes weaker,

and succumbs easily then to a heart attack. It's the largest source of death in California. It's about 20 to 25 percent of all deaths.

Now, at the same time, animal studies have come out showing that we had been really sort of missing the ball for particles. Unlike ozone, which is highly reactive, the particles go deeper into the lung, into the bloodstream, and they end up elsewhere in your body, in some cases in the heart. So the animal studies showed in fact that the cardiovascular system was severely impacted by particles on a long, slow basis that they simply build up over time. So this became very worrisome.

MALE COMMITTEE MEMBER: May I ask a question? May I ask a quick question?

MR. CARLISLE: Yeah, just only questions for clarification.

MALE COMMITTEE MEMBER: Okay. Yeah, the ascemia is a result because of the fact that the difficulty of the oxygen exchange in the lungs makes it that the heart has to pump harder to occur, and that's why the heart enlarges. Because the particulates wouldn't enlarge the heart directly, but the labors of the heart to overcome the affects of the air pollution might be the issue.

DR. CAHILL: This is an area of controversy right now, and I'm not a doctor so I don't know the effects. We find the same particles you'll find in the lung though buried in the

heart muscle, so particles of a small size (inaudible) (phone disconnecting). So the point is that the people argue is it an immune reaction to the particles of the lung affects it or is it the actual particles themselves? It's not known, but the studies show though that the cardiovascular correlates. So when we do the study of the cardiovascular here and found this high correlation, it supported it. And to only lowering your point, we also did carbon monoxide. No effect at all. We looked at strokes, no effect at all. And ozone was very week. So the particles stood out as the strongest correlation between the rate of ascemic heart disease and air pollution.

CHAIR WEISSER: You say the strongest correlation. Do you mean the strongest correlation of - do you limit it to different sorts of air pollutants that we monitor, criteria pollutants and other pollutants or do you mean to lifestyle - including lifestyle? I mean - what do you -

DR. CAHILL: By the way, the three good points you made. First of all, it's only a correlation. It's not causality.

CHAIR WEISSER: Right.

DR. CAHILL: As my next slide shows. Secondly, we did everything we could with lifestyle because - such as smoking, social economic index, male, female, age, all these were in fact, covered in the report. But it is simply a warning flag that there's something up there we have to know about.

square.

CHAIR WEISSER: And could you just give an approximation of what the actual correlation factor was?

DR. CAHILL: Our spread for the raw PM-10 data was R

CHAIR WEISSER: That's very strong.

DR. CAHILL: Now, the power, this is done in 1989, 1991. And in fact, after that they added PM-2.5 measurements, at which point the correlation went to R square of .69 raw data, nothing removed.

CHAIR WEISSER: That's a certainty.

DR. CAHILL: So the point was it's highly correlated. Well, the EPA got this report and the first thing they asked was how much did it cost? When I told them \$5,000 there was a series of expletives coming off the phone. Anyway, so this is the - so we started then a series of programs trying to identify those areas in more detail.

The second point you made was this was based upon criteria pollutants. Oh, yes. Oh, yes. And most of the criteria we now know in the San Joaquin Valley are totally harmless.

CHAIR WEISSER: Uh - huh.

DR. CAHILL: The rats at Davis will swim in this stuff. So we have a situation where the EPA is then dropping the hammer on the Central Valley on things in fact that may not need to be controlled and avoiding even measuring things that may be critical. But California has a long history of being,

shall we say, proactive and we are unafraid of going out there and doing it right. And other states around the country will follow our lead if we do it right, so the EPA, California's scientists are in a process of learning what's going on. I'm trying to give you some idea of the early points, but there's many questions.

But since you raised the question of causality behind statistics, the point is that most fine particle mass appears to be harmless.

Bob Deb (phonetic) of USEPA summarized the five top suspects for the causality bad affects. And in fact they are - four of them in fact, are strongly involved in diesels and smoking cars. Acidic aerosol, the evidence is getting weaker. Fine traces of metals affect the lung. You've mentioned John, get free radicals and nasty things happen. That's beyond my knowledge of - ultra fine and soluble particles. They go into the lung. The lung cannot get rid of them and has to handle them, not on the basis of mass, but particle by particle. It encapsulates them, it shrouds them, and rats will die because of it. They drown in their own lungs. And high temperature organic matter. These are organics starting with Benzoate Pyrene and working their way up, all of whom are nasty. Oops, went too far. I have to get this thing right. Oh, fine.

This is a summary of the collection by the lung of particles. And I put on it the measurements of PM-10, PM-2.5

and 0.25, which run from the level all the way to the left side. So PM-10 does include, in fact, all the very fine particles. As you can see, when you go about .1 micrometers in size you suddenly have the lung being an extremely efficient collector of particles. And that's the reason the EPA went to 2.5 instead of PM-10 because there's so much soil in the thing. So the particles in that mode then become highly collectible by the lung. Further, the health effects show some of these effects are not based upon total mass, or the number particle, or the surface area. And the surface area tends to be lower in size than the mass.

Now, the results I'm using, I'm freely borrowing. We call it research. I'm freely borrowing from studies all over the place. Some of which we're working with and some of which we're not. The work of the Desert Research Institute (inaudible), we were involved in that. The Lube Oil study for (unclear), we were not involved in. The rest of the work we were.

So first of all, let's start with diesel because they don't affect you directly. The compression engines are an inherently dirty technology because the high compression and temperature fixes nitrous oxide that's essential to the process. To have high compression requires a high molecular weight fuel, which tends to easily make toxic organics. The close tolerances — thank you, I'm getting over a cold — make effective cylinder lubrication difficult. I mean you burn up lubricating oil. But

I've seen a report by Piddleson (phonetic) just last week in Minnesota that post-effective clean up can be very expensive, but very effective, so effective, that the air coming out the back of a diesel truck is cleaner than the air going into the intake. Now, that I think is a criterion one would like to appreciate. The same thing happened, by the way, happened with the modern California car.

CHAIR WEISSER: Uh - huh.

DR. CAHILL: You can actually take the exhaust pipe through the passenger compartment and not violate any standards. But the correlation of small versus large yields is critical. You go to a small diesel engine; the volume versus the surface area gets disfavorable, long haul and short-term operations. I'll show you an example.

So these are data now from the University of Minnesota, Diesel Truck Studies. And what I'm looking at here, unfortunately the small particles are in the far right. That was the way the contract required it, but the rest of them will be different. And I put on here the mass of particles, which is in the red line, the sulfur coming out of particles in the green line, and then other elements that we saw below, going from very ultra fine particles in the far right over to PM-10 in the far left. And this, by the way, represents probably 60 percent of the trucks they checked.

Now, where does it come from? The sulfur was only in the fuel, so it's a measurement in a fuel combustion. The mass, likewise, mostly from the fuel. Note the size of the particles, .1 to .056 micrometers. These are exactly the size the lung does a wonderful job in retaining. Regretfully - okay.

Anyways, I've labeled everything.

Now, first of all, how can we separate? It turns out that lubricating oil used in it had zinc pyrophosphate as a stabilizing agent. And so we see zinc and phosphorous, then, coming from lubricating oil. We see the sulfur from the fuel. We also saw calcium. I said what? That's soil. No, it's Tums. Calcium Carbonate is an antacid used in oils to get rid of the acids. And then for reasons I don't understand, there's even a little bit of lead there. Now, the red line, by the way, is 200 times larger than the yellow line. So the other ones are all trace elements, the red squares are the actual mass.

Roughly 30 percent of the engines look like this. Now, these are good engines. None of them were listed as being smoking or anything. So these are engines being run in a laboratory at Minnesota as part of major tests, yet they look like this. Look at the green line first. There's the signature of the fuel combustion fuel. By the way, it's California fuel. It's exactly the same level and the same amount as the previous slide, but look what the lubricating oil does. It extends particles way down into the ultra fine mode and way up into the

coarse mode. And yet, looking at the record, there was no indication this was a smoking truck. 80 percent of the particles by number occur because of the lubricating oil, even if the mass is dominated by the fuel. So this there is a truck that is spreading particles up and down.

Now, the Air Resources Board in a recent study was running around Los Angeles with a mobile van and a very nice piece of work, by the way, picking up various trucks and so on. And it is not correlated being what you see. The second highest level of ultra fine particles seen by Dana Westerdol (phonetic) in Los Angeles came from a recent model gasoline powered van. So yeah, it just shocked the heck out of me. So now, if you look at the bottom, we can then take the tracers, the zinc, pyrophosphate, and so on and calculate from the ratio of zinc how much diesel exhaust is present.

Now, for the Lung Association, the job was how much does the affect of highways like I-5 affect the City of Sacramento? Now, before I leave that, let me talk about spark combustion engines. It's a potentially clean technology. The low octane fuel, thanks to all your efforts, no longer fixes N-O. Bingo. Low molecular weight fuel, less toxic organics -

CHAIR WEISSER: Dr. Cahill, what do you mean by fixes N-O?

DR. CAHILL: The temperature in the combustion cylinder gets to a certain point. At that point then you start

fix nitrogen from the atmosphere, the N-2, forms N-O molecule.

And N-O molecules require a very high temperature combustion.

By dropping the octane of fuel you dropped it just below that point. And so Cal - therefore there's an extremely steep curve.

So diesel, which requires high compression, pushes the combustion into that region to get its efficiency, and so it's stuck. It has to have - and so right now -

MALE COMMITTEE MEMBER: So it forms the nitrous oxide.

DR. CAHILL: In the fuel.

MALE COMMITTEE MEMBER: The nitrous oxide -

DR. CAHILL: Comes out the tailpipe.

MALE COMMITTEE MEMBER: Goes out the tailpipe. It picks up other noxious things attached to it, or is it by itself?

DR. CAHILL: It makes ozone and other things - very strong ozone producer. It's also bad (unclear). So the point was - so therefore the spark combustion cars, including by the way, CNG, have several things going for them. But the question is we lack cylinder tolerances. SAE 40 oil thrown into a car if it's been running for 100,000 miles in Los Angeles and the cylinders go flap, flap, flap inside it, you can have trouble.

Second thing is, if you look at the value of diesel exhaust over the years, which we did with Alan Girdler (phonetic), the diesel exhaust truck emissions have been coming down sharply and

steadily, a credit to the industry. There are many large diesel trucks who are essentially invisible on the highway, they're so good. Again, the well maintained vehicle, the badly maintained vehicle. It works for diesels. It works for cars.

The value for cars though are now plotted below it. Now remember, a new California vehicle puts out about one milligram per kilometer of particles - very low number. But the average we're seeing in the field on a highway is about 14. So if you look at those graphs, it turns out that the average California car is now only about ten times less than the average present diesel. Yet, on almost any highway around here there are at least ten times more cars than diesels.

MALE COMMITTEE MEMBER: Could you run that by again?

This is for zinc or is it for total (unclear)? (overlapping)

DR. CAHILL: No, this is actually for mass. The zinc trace I've put on there also. So in terms of the mass emitted, total amount of material, the present California cars are about one tenth of a well maintained diesel.

MALE COMMITTEE MEMBER: For particulate matter.

DR. CAHILL: Yes, total particulate matter, which we now know is all very fine. It used to be a factor of 20.

MALE COMMITTEE MEMBER: Yeah.

DR. CAHILL: So sort of under the radar, the diesels have been improving steadily. The cars have not been improving on the road. Even the manufactured cars are excellent. There's

a disconnect between what we're seeing on the highway and what's being put out there. Another way to put it is the average Californian driving a new car, reformulated fuel, and new converters has a very, very clean vehicle. This can be - recognize that by backing off the checking points. But there are cars out there that are doing us in. And that was one of the jobs of the Lung Association. Can we identify those vehicles?

Well, this work is unfortunately incomplete, the best I could find as of 2002. Surprisingly little data are available on cars. There's massive efforts right now on diesels. But I've showed you some data from a group, that's mostly from Sea Surf (phonetic) down at Riverside, showing what a smoking car puts out. And then cars that had no visible smoke still had 32 milligrams per kilometer, when in fact a new car has one. So the gross emitting smoke, and we've all seen a few of them and they're pretty bad. But there's a lot of cars, roughly ten percent of them, that fall in the high C-O, high H-C, no smoke category, and others that have proper hydrocarbons, good hydrocarbons, good C-O and still smoke because the smoke particles are not well coupled to the combustion of fuel.

It unfortunately gets a little worse. This is work from Eric Frageta (phonetic) where he analyzed the used oil from diesels and the used oil from cars. You want to know how the cars handle the oil and re-circulate it. Over time, that oil

which you see is so black, is full of the most awful things.

The light (unclear) (coughing) benzoate pyrene, perlene,

coranene, benzoate pyrene. These are highly toxic pH's that are

present in the oil. If the oil is burned, some of those pH's

come out unmodified. Are there data on this in the atmosphere?

Precious few. But it is an early warning flag that the cars, by

the way they handle they're used out, are causing us a problem.

So how is Sacramento doing? This is a picture of the PM-2.5 mass in Sacramento for the year 2002. Remember those big forest fires in Oregon? That little bump, by the way - little red bump on the 7th - in early July on the 7th is, in fact, the 5th of July. It's fireworks. What you see then is a very clean period most of the year, and by the way, thank you. Thank you everybody who's done work on the rice straw burning. This part of the graph over here used to be filled with rice straw. That's all come down. Followed by stability in the winter, those sorts of dry fogs we have where the thing just sits inside of Sacramento punctuated by rainstorms. So the high peaks tend to be your two or three, four, five, six day hazes and the rain storms clean it out. This, by the way, is pretty much the same pattern all the way from Redding down to Bakersfield, so good old Sacramento.

This is a study they did with the - the first big study with the Lung Association and what we stated was - I had to have a series of air samplers that had just come back from all

places, China for the National Science Foundation. And so using our volunteers, and we use a lot of them, we spread a line of samplers from Davis, my backyard to the left, all the way to Shingle Springs. Norm Cavelle's (phonetic) house is one of the cleanest houses, by the way. He lives in Orangevale.

Now, Sacramento's interesting. We have, in fact, a nexus. I-80 comes through the city, I-5, 99, and 50 and they all cross within a few miles of downtown because it's forced that way by the (unclear) of the delta. So we have typically 76,000 trucks and 1.1 million cars a day on those four roads alone going through the city. It's a much denser net, in fact, than Fresno has, and in fact, rivals those in Los Angeles. So we sampled there at Arden Middle School, which is well away from all the highways.

So I-5, what's the impact? 10,000 vehicles, traffic lanes, and so on, but because of the complex terrain, it's very hard to calculate what the affect of I-5 is on that site of the Crocker Art Museum. It's the freeway's cut, it's freeways above it, there's trees, there's sidewalls, and so on. But we can use our new tracer from Minnesota to estimate the diesel exhaust. So here are the four sites - three sites we used. The Riverside was right down at the wastewater treatment plant. The Crocker site is the red star, and the Air Resources Board site is at 13th and T Street. That's where the data I showed you.

We used these portable samplers which we can set up. only 43 centimeters high. It was actually designed to fit under the seat of an airline so you can travel with a sampler. when you walk into the airline with something that looks like a thermonuclear device and so we've had zero fortunate luck. mean - I took one virtually wrapped up in tape and so on, but now I just have to ship it as a complete luggage. I mean - it's full of bells and whistles and even a battery. I mean - it looks like a bomb. If it's a bomb, it looks like it. What you get, though, if you let this thing run, what you see is a slow rotation on these drums over six weeks and the particles that separate it in size. Now, what I want to say is that by separating in size, it makes everything easy because now we can separate the ones that are very fine from the sore which is coarse.

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This is an example of a typical 0.26 to 0.09 stage actually taken on Highway 50, actually at South Lake Tahoe. And you see with these bands as a function of time, represent not the rush hour, but in fact, the time when the wind switches from upslope to down slope at dawn and dusk. And that black that you're looking at is mostly soot. So we can now take this stuff and analyze it. Now, I developed a program at the (unclear)

National Laboratory using a synchrotron that's a one million dollar machine that puts X-rays through the samples in such a way that the background of the X-rays goes away. So I have a

great deal of sensitivity. What'd it turn into? It turns into making me the McDonald's hamburgers of elemental analysis. We can do an analysis for a dollar, but don't quote me. Well, I shouldn't say this - I mean - talking about - but the answer is that's about what it costs. In ten seconds we get down to 20 picograms for a dollar and we do, in a given ten weeks, 81 thousand analyses because if you measure by size and time and composition, you're making a measurement every hour, times 8, times day after day after day after day. So we had to drive the cost down way below anything that's available. So I used a big (unclear) machine to do it, but for the last four years that (unclear) has been mine. I run it. I schedule it.

And by the way, there was quite a bit of resistance by the physicists and chemists of a large (unclear) laboratory using a machine built for physics and chemistry to study smog. I had to argue with these guys from Germany who claim in Germany diesels are clean. Oh, God. So anyway, but we won and now I think they'll never take it away from us because, in fact, it's working very well.

So this is the raw spectrum we get. These are the elements arranged like physicists like it, by atomic number, sodium, magnesium, aluminum silicate, just like on the wall of a chem lab. So we get this spectrum with all the elements. The point is that in my area I don't have to be smart, just careful. I didn't know about zinc zyophosphate (phonetic) and (inaudible)

(phone) please press it. Anyway, so the point was, in this area, I don't have a previous knowledge of what's in this fuel. I didn't know about zinc zyophosphate, but I measure the stuff and I saw the zinc and then checked out. So the answer is if you can't be smart, be careful. And so this says what's there.

So here's now a profile across Sacramento on very fine particles that are the same elements we saw in Minnesota as traces of diesels and we know now as smoking cars. Look at the period around July 1. You see two of the elements seen in diesel. You see sulfur and zinc, but no phosphorus. What's that? That's the fireworks on the tower bridge on the 4th -

MEMBER LAMARE: January 1.

DR. CAHILL: Thank you. Anyway, January, right.

New Years Eve, right. Right. The two peaks next to it though both have the signatures of the material in Minnesota. So let's examine them in more detail. This one has all the signatures we saw in Minnesota for diesel and smoking cars, and it lasted for three days. Now, based upon the Minnesota numbers, we predict 4.3 plus or minus 2.9 micrograms of diesel mass. We then measured it. Coarse mode and fine mode, and we find 6 plus or minus 1, versus predicted 4.3. The sad result was therefore, at 13th and T and the Sacramento River and the Crocker, we found almost exactly the same level of material and it all appears to be from diesel and smoking cars, so fine particles penetrate deep into the city. They're not just limited to the highway.

The big peak we saw, by the way, corresponded to the air moving slowly up the valley from Fresno over a period of three or four days and that appears to be San Joaquin Valley air.

CHAIR WEISSER: Dr. Cahill, when you say moving deep into the city - you know - you're talking about some locations that are like a guarter of a mile away from the freeway.

DR. CAHILL: At some point we're about 800 meters

North of W-X and three kilometers to the East of the I-5. So it

represents an area that's at least five kilometers across, but

that's the only station we had.

CHAIR WEISSER: Yeah.

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DR. CAHILL: I'll show you one example of one at where it did not get, by the way. The next site we did was a site away from the freeways, and anticipating your question, at Arden Middle School. It was added the very last minute. Watt Avenue has 77,000 cars a day but almost no trucks, less than one percent. They're highly visible, but they're not many. I hired the school crossing guard, by the way, to count trucks Well, he was inexpensive. He was very good. for me. have a site at Sebastian Way, which is well away from the highway. So this is a picture, then, of Sebastian Way on top and the Arden Middle School at the bottom for the traces we saw of diesel and smoking cars. The difference is pretty dramatic, weekday and weekend both. The weekends, by the way, are dashed lines and those peaks you see at Sebastian Way, you generally

occur when the winds shifted around and it suddenly became downwind. But the good news is that the very fine particles you saw in downtown Sacramento did not penetrate this far. So one number is it's at least five kilometers in. The second number in, it's not out ten miles. So that gives you some indication of the pool.

Now, the terrain was flat so I can use my line source modeling like the (inaudible) four, and we observed at the school, where the kids were, 7 plus or minus 1.5 micrograms per cubic meter versus predicted 5.4, 7.7. And it was two-thirds cars, one-third trucks. But I just told you trucks are one percent. Why was that? Well, these are two and three axle trucks at a stoplight. See, so you just can't use the literature values. You have to watch out. These guys put the pedal to the metal and these great big plows come up and switch right across the school grounds. Those kids might as well have their classroom in the middle of the median strip.

Now, my last topic will be Central Valley. The Central Valley site is something called the EPA super site, which is not one kilometer from the nearest freeway. Now, in Fresno there are two major freeways, highway 41 which is 117,000 cars and 5,000 trucks a day. And by the way, the trucks by the way are largely at night. And Highway 99, 60,000 cars, 15,000 trucks a day with the trucks at day and night both.

But before I talk about the particles, let me say a quick word about the Fresno ozone because that directly affects it. One of the great triumphs of California is the improvement in ozone levels in the last 20 years. This is the peak ozone in Los Angeles over the last ten years. This is the average 8hour, three year high. And by the way, the dashed line is the federal standard. No other place in the world has achieved this effect, nowhere. We're by ourselves. There ought to be a day where we have a celebration of victory. Tell the people they paid their money, they got their cars. This is Alameda County, not quite as good, but still a decrease. And here's Fresno. Now, there's essentially no change. Now, linear rollback is the heart of everything we're doing and clearly something is wrong. So looking at the NOX emissions by county, you can see that in fact the numbers have been steadily dropping for the last decade. Likewise, reactive organic gasses. These are the stationary, on road vehicles and so on.

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So what I did was I took Los Angeles, the Bay Area, and San Joaquin Valley and did a calculation instead of linear rollback. Take the 8-hour ozone reduction, which L.A. is 42 percent in ten years, take the average reactive organic gasses, NOX 51 percent, and a yield that is 82 percent, which is not bad. You get a pretty good bang for your buck. Bay Area, 23 percent ozone reduction, 44 percent NO, the same as L.A. almost, 52 percent. so you only get a factor two reduction. In lead and carbon

monoxide they're one to one but these only effective too. And for Fresno, two percent reduction, 44 percent precursor - what the heck is going on? So why didn't Fresno - well, first of all, do a little background. We're not going from zero ozone. The world has ozone. It's very natural. So let's look at this. Now, all of a sudden, we put the global backgrounds in. Then L.A.'s yield goes to 81 percent. Look at the Bay Area, 98 percent. So if you take into account the global ozone background, we are getting linear rollback in ozone in the Bay Area and Los Angeles. Congratulations men and women.

MALE COMMITTEE MEMBER: What do you mean by yield, Dr. Cahill?

DR. CAHILL: A yield means you put the money into reducing your hydrocarbons, reactive organic gasses, or you're getting a reduction in ozone that's commensurate.

MALE COMMITTEE MEMBER: Thank you.

DR. CAHILLE: So that really is one-to-one reduction. And then look at Fresno, 9 percent. So something is wrong in the Central Valley and I won't say what. I've actually given my report to the Air Resources Board, the EPA Region 9, and to San Joaquin Valley Basin. But the point is that all your efforts, all the money you spent on reducing exhaust has certainly helped, but it isn't going to do the job.

What's a big hint? This is a picture of the ozone in Fresno over the entire year carefully scheduled. And you see,

by the way, in winter - January - we're right about the global background, 35 parts per billion. Then for much of the year the ozone tracks beautifully with the temperature until the summer 4 when suddenly the ozone sort of flattens out, except for a series of short high peaks which simply shred the federal standard. So the problem in Fresno is not the average day, which in fact is rather typical of the valley, but in fact these sharp peaks. My analysis says these sharp peaks come from stationary sources, not mobile sources, in the Bay Area traveling above the valley, hitting us here in the Valley, stacking up above the mountains which is seen by aircraft, and then sliding down on the night winds to right above Fresno where the N-O sits there ready to make ozone at the crack of dawn. 14 MEMBER PEARMAN: studies that you've done with the particles?

And that's based on the speciation

Speciation on particles and the fact DR. CAHILL: they have a wonderful sampler station at Yosemite National Park and the work at Lake Tahoe. We can actually follow these particles coming across.

> MEMBER PEARMAN: So this, your analysis of where -

We haven't published that. DR. CAHILL:

It's not published yet? MEMBER PEARMAN:

MEMBER LEMARE: Mr. Pearman.

It will be. DR. CAHILL:

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MEMBER LEMARE: Just to point out for clarification that this is about Fresno.

DR. CAHILL: Yeah, it's Fresno.

MEMBER LEMARE: That doesn't mean that the emissions from the vehicles are not creating ozone in the foothills east of Fresno.

DR. CAHILL: No.

MEMBER LEMARE: This is not a comprehensive assessment of air pollution in the San Joaquin Valley. This is a picture of Fresno.

MEMBER PEARMAN: Thank you, Jude.

DR. CAHILL: I would like to so you've all seen this wonderful ozone picture showing the plumes of Sacramento being pushed to the foothills. Those still happen, but I'm saying on top of that are these great big events which appear to be stationary. So yes, we obviously need to roll back the material here and the rollback is working. But there's also on top of it - but these are the things. Those great big peaks are the ones the EPA looks at federally when they drop the hammer.

Now back to particles. This is the EPA's super site. I'm not getting a picture. And you see Highway 41 and Highway 60. This represents the PM-2.5 for 2002 at Fresno showing the very high rates of PM-2.5 in the winter and rather clean in summer, except for the Oregon forest fires. They filled the valley with smoke. All right. Look now in December. Now, this is the same

graph I showed you before with the same things we saw in Minnesota, phosphorus, sulfur, potassium in this case, and zinc for Fresno. But the scale now is 300 nanograms, not 60. And if you look at the results of Minnesota, you predict there should be 9 plus or minus 6 micrograms averaged over 24 hours, times three weeks. We recently measured the actual mass and the bottom scale. It was 8.8. So one kilometer away from the nearest freeway we're still seeing 9 microgram per cubic meter of material in a very unfortunate mode.

A recent paper was published in Los Angeles - I'm just about to finish - on ultra fines near the 710 freeway, which is in fact a mammoth freeway. Now, this is published by Juidall (phonetic) as part of the very good program at UCLA and USC. Well, the graph immediately caught my attention because I did some work in L.A. in 74. So I redid their graph and put on it my lead values. This is the black line. So what you find then is the ultra fine black carbonate number is rather high upwind of the freeway. It jumps right at the freeway, but that's no great surprise. So the problem is very few people live within 100 meters of a freeway, but a lot of people live upwind for several miles. So what we're finding then is that in Los Angeles also, the ultra fine particles appear to penetrate the entire city. They're not limited to the freeway. So my bottom line is far more people are being impacted by toxic ultra fine smoke in L.A. from cars than from diesels.

MALE COMMITTEE MEMBER: But Dr. Cahill, I remember reviewing a couple of years ago data from the South Coast Air Quality Management District's Mates (phonetic) one and two studies.

DR. CAHILL: Yes.

MALE COMMITTEE MEMBER: Which appeared to show that in fact, the hotspots, let's say, where most of the PM fine was located were within spitting distance of freeways and major arterials. But you're indicating that no, that's not true, that in fact, that the spread of PM is relatively uniform across?

DR. CAHILL: We need to be very careful because the Mate study looked at the number of toxics and so on, and some of these particles were condensables and they in fact dropped off rapidly near the highways. What I'm saying is that these very fine particles don't behave like it. They behave like carbon monoxide, which is diffusion limited. And so the point is that we have to be careful that yes, I would - the general feeling would be that these particles, which we consider the most dangerous, penetrate the entire basin. And so I think when they made the measurements, and these are measurements from the Los Angeles basin, so I think this is a bit of a revision -

MALE COMMITTEE MEMBER: Uh - huh.

DR. CAHILL: - of the feeling that if you look only at those components that we feel are most worrisome, that in

fact, they penetrate the basin almost in its entirety. One more minute here, but I'll just - I appreciate your patience.

So I developed a new technique at Davis to measure the very finest particles from 0.09 to zero and this is the - I see a picture of it in there too. And of course, we did the first test in our laboratory, and here's what we found. We found surprisingly, in Davis, several micrograms per cubic meter of particles below .09 microns. That was to me, a total shock.

Now, the 5th and 6th were Thursday and Friday, 7th and 8th were the weekend, and then it came up again. So we analyzed them and we found out again, not a little, but a lot of the tracers of lubricating oil - this is zinc and phosphorus - during the weekdays when the buses ran. Now, Davis students may be very lazy on the weekend. There are no buses running around the city on the weekend. So there's a case where the buses run daytime only and we're getting a major signature of, looks like burned lubricating oil. So we correct it.

Well, it turns out if those buses were diesel, we'd have seen more by about a factor of four. What were they? They're all compressed natural gas. So we have a - as a stunning result was - now, remember in the beginning when the C and G came in? There was a problem with lubrication? Because diesel oil as a fuel is a lubricant also, but compressed natural gas is dead dry. They have to increase the lubricating and so on, so therefore, once again, it turns out that the particles we're

looking at are not associated with what is a very, very clean fuel, but appears to be associated with burned lubricating oil. This isn't such good news.

So in conclusion, California has achieved splendid success in eliminating ozone precursors and the results are a major success, except for the Central Valley. Very fine, less than 2.5 micron particles - oh, that's a mistake. It should be 0.25. 80 (inaudible), so the very finest particles dominate all the toxics in the air. They're the higher emissions, they're a problem for human health, they're not controlled by the same methods used for ozone precursors, and they're closely tied to lubricating oil. And in most areas of California, it's the very fine particle mass in toxic and smoke dominated by cars, not by heavy-duty diesels.

So thank you all for your attention. I'm sure this is going to be received with great joy in other places. But at least you have a full early warning what's about to come down the pipe. Thank you very much.

CHAIR WEISSER: Before you step down, Dr. Cahill.

DR. CAHILL: I have - I'm expected to be here.

CHAIR WEISSER: Can you tell us what you mean by early warning? When will the studies be completed, peer reviewed, and published?

DR. CAHILL: The paper is being - the two papers, the ozone paper and the particle diesel papers, are both in

preparation right now, together with the people at DRI, and we hope to have them submitted within three months.

CHAIR WEISSER: Submitted means what?

DR. CAHILL: Submitted to publication. It has been reviewed.

CHAIR WEISSER: Okay.

DR. CAHILL: So my guess, probably a year.

CHAIR WEISSER: A year.

DR. CAHILL: Right. The Kaysac (phonetic) Committee of USEPA met one month ago.

CHAIR WEISSER: How many of then hung themselves after seeing this data?

DR. CAHILL: They had actually studied - they haven't seen all of it yet. They saw some of it. They actually, for the first time in their career, talked about ultra fine particles as a special area of concern for the USEPA. Now, don't expect swift action. I mean - to be honest with you, I would - they do this and they fund contract research at ORD and so on like that. So it's going to be a long time before that turns into anything.

CHAIR WEISSER: Well, the biggest - I mean - the biggest eye opener or potential eye opener to me was the relationship between the production of these fine particles with light duty vehicles compared to the heavy duty trucks. That is a surprise.

DR. CAHILL: Me, too.

CHAIR WEISSER: And your ten to one ratio is shocking.

DR. CAHILL: Now, that is published, by the way.

CHAIR WEISSER: And I think if that's the case, well, that demands some real serious thinking on my part.

DR. CAHILL: Why don't I - I'll propose I guess to Rocky, by the way, a copy of the refereed reports on that ratio which I have. That was published last year.

MR. CARLISLE: Yeah, I'd like to see that.

DR. CAHILL: I'll make sure that the Committee gets full copies of everything.

CHAIR WEISSER: Okay. Well, let's see if there are some questions or comments from Committee members. Whoa. We'll start from the far right once again with our bearded compatriot.

MEMBER HOTCHKISS: I'm kind of interested. You made a comment about some German engineers and I think I've probably talked to the same ones about diesels. And I think one of the things that they kept pushing was that the quality of diesel fuel in Germany and in Europe is so much better. It's so much cleaner, lower sulfur content than it is here, and they always put that forward, at least the ones I've talked to, is one of the reasons why their diesels are cleaner in Europe than they are here. Now, you said the test in Minnesota was done using California spec fuel. Do you know if there was any tests run using a European spec fuel?

DR. CAHILL: No, we had some - very good question. We had some tests using what's called pool fuel, or road fuel, and it was a typical U.S. average fuel, which had much higher sulfur. Regretfully, I have nothing on bio-diesel. I've not seen a full study yet. I mean - I'm looking from - so the point was, I'll just tell you that there's great big gaps in the research that aren't being filled in.

MEMBER HOTCHKISS: Uh - huh.

DR. CAHILL: But I think that these results would indicate that a well maintained vehicle, German or not, that does a very good job in terms of their lubricating oil, might very well have in fact a cleaner operation. No, they're - Europe is pushing very hard on the clean diesel technology and it's a very clever people there. And they're using filter techniques and so on. But it's a difficult task when you go to a small vehicle like a car, which couldn't afford a \$5,000 -

CHAIR WEISSER: Track, yeah.

DR. CAHILL: - post combustion stack like a long-haul diesel could be. Or perhaps the Roseville rail yards.

We're working there also.

CHAIR WEISSER: Well, I think it needs to be noted that the implications associated with this sort of stuff for the ARB's PM reduction program, in particular its diesel reduction program, are substantial. But in terms of this Committee's roll, the implications are striking and - you know - I think

we'll bear some pretty significant consideration. Okay. We had other -

MEMBER HOTCHKISS: Thank you.

DR. CAHILL: Thank you.

CHAIR WEISSER: Dennis, did you have a question?

MEMBER DECOTA: Well, first of all, I enjoyed very much your report. It really helps - you know - from our standpoint. As I understand the issue, basically from a technician standpoint, is that hydrocarbon pollution creates more particular problems in older vehicles that are squeaking on through the system without being addressed. I have two parts to my question. One, have you looked at the motor oils from the standpoint of synthetic versus conventional, and is there a differential in the emission values there? In other words, should we as a Committee maybe look into the recommendation down the road of a synthetic based motor oil versus - you know - a more conventional type motor oil, the frequency of changing that motor oil, okay -

DR. CAHILL: Yes.

MEMBER DECOTA: - On cars that have certain mileage as a Committee? You know - because what this to me is, is that we have lower compression. We have valve issues that are allowing or not completely burning the fuel in the cylinder, which is creating more particulate matter through H-C. Am I looking at this properly?

DR. CAHILL: Yes, and yes. The question of the oil change is interesting. It's a very interesting result. One question I want to ask you though is that Eric Frageta at Desert Research had a very large multiyear contract on the testing the split between the diesel and fuel, and his results have just come out. I actually grabbed some a little early. He sent me the slide. I have not seen anything on the synthetic oils, but they've got to be different. But I've seen nothing. And again, I'm telling you there's great gaping holes in this story which aren't there.

MEMBER DECOTA: Right.

DR. CAHILL: The question of oil changing routinely is right on the money.

MEMBER DECOTA: Right.

DR. CAHILL: I mean - I think you could have a massive reduction in pHs for these older vehicles by insisting on a rapid change. You know - the other thing was if you're burning a lot of oil - you know - what kind of oil is it? I mean - the question should there be in fact a special formulated oil, like there is (unclear), for older vehicles that doesn't have this problem? I don't know. But the point is it raises a lot of questions and you've addressed a couple of them. I certainly am now much more motivated. I never put any oil in my car and it's a - and the point was that when I go for an oil change, I automatically change it because it doesn't burn oil.

And the diesel technology, we have to go to a better ring technology, which you could do. You can have the first two rings being, let's say, high temperature and have a Teflon ring for the third ring -

MEMBER DECOTA: Right.

DR. CAHILL: - to make the oil use less. There's a lot of things, once you know the problem is there, technology has ways to address it. But it's come up very recently and it's kind of a shock to all of us because we had lived in a certain life when diesel was a milligram per kilometer now, so good point.

CHAIR WEISSER: Thank you. Jude?

MEMBER LAMARE: Tom, do you have any suggestions or thoughts about the issue of adding a visible smoke test to the smog check program, something that we talked about in our last report?

DR. CAHILL: I very strongly support this. The question is the smoke is one item, which clearly does it. I am very pleased, by the way, at the voluntary compliance on the 1-800 get smog program in the L.A. basin. It's between 30 and 40 percent. That's people being sent a postcard saying your car's a smoker, get it fixed. They get it fixed because you don't look at your tailpipe. I ride a bike and a motor scooter and I'm right behind a lot of cars. I know exhaust very intimately. And so the point was, I think that's a very good point. But the

problem of the ultra fine particles is different again. These particles in fact, according to the Air Resources Board data, can be totally clear. See, and I don't even know what they're made of, and so I think that - I do know, by the way, the Air Resources Board is a very nice research program at UCLA in which they actually bring instrumentation in vehicles to drive around the L.A. basin and measure in great detail what people actually are breathing as they commute, because they show that in fact 80 percent of the total particulate exposure to the average Los Angeles worker is in the commute period.

And by the way, I should mention on the comment, the other question is of course, diesel school buses, which they've shown are deadly. Some of the youngest kids in L.A. are getting the worst diesel exhaust because the way the buses run in sequence. One bus, one bus, one bus -

MEMBER DECOTA: Right.

DR. CAHILL: - and they're polluting as hell.

CHAIR WEISSER: Well, fortunately due to the good work

Of the environmental community, business community, and many

other people, we're getting serious slugs of money being made

available never before to get at the diesel bus issue, to put in

cleaner diesels, alternatively fueled vehicles.

DR. CAHILL: Uh - huh.

CHAIR WEISSER: Are there any further questions?

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asked the question about the synthetic oil. That occurred to me The other thing we see is that now where previously the generally recommended oil changes every three thousand miles and so on, now you see more and more vehicles where the recommended oil change is only ten thousand miles or longer in certain instances. I'm wondering if - you know - presumably that's based on some improvement in the technology of the vehicle or something, but I'm wondering if that has an effect of if the tolerances I heard, yeah - tolerances are a little tighter. It'll be interesting to see over time whether that has - you know - I mean - the oil gets older and presumably deteriorates over that period of time, so it's (inaudible). (overlapping) CHAIR WEISSER: It doesn't deteriorate, it becomes polluted is what happens.

MALE COMMITTEE MEMBER: One very quick one. Dennis

MALE COMMITTEE MEMBER: Well, yeah, polluted.

CHAIR WEISSER: Right.

DR. CAHILL: That's a very good question and an interesting possibility that cars ought to have a situation where that in fact you have an oil change period not because of use of oil, but because of quality of oil.

> MALE COMMITTEE MEMBER: Right.

DR. CAHILL: I hadn't thought about that.

CHAIR WEISSER: Okay. This has been really, to me, eye opening. It's no surprise to me that a great deal of research

on this is being done in Europe, as 50 percent of or more of their light duty vehicle fleet is now being sold as diesel powered. Their approach has been based upon the government officials and NGO's that I had spoken to that they favor diesel technology because of the energy and climate change impacts.

You get more power out of a certain amount of diesel than you do out of - you know - gasoline or natural gas, and it has - you know - some nicer characteristics I guess in terms of climate change. When I asked them about what about the PM problems that have been associated with diesel, the response that I've gotten is we're confident that our technology will take care of that in a few years.

Our approach has been rather different. We're discouraging the use of diesel because we are so concerned about the problems associated with particulate matter attached to diesel. And yet, I guess I'm walking away saying what I'm struck with most about what you've said is the role of the light duty vehicles, the gasoline powered vehicles, in PM generation. And I sure personally will try to find out more about what others think in regard to that. Dr. Cahill, on behalf of the Committee I want to thank you for this eye opening presentation. Thank you very much.

DR. CAHILL: Happy to do it. Thank you.

CHAIR WEISSER: What I'm going to suggest is that we take a brief break right now, ten minutes. Let's say until -

we'll take it until twenty of 12:00 and then we'll do the next two items, the BAR and the ARB update.

MEMBER LAMARE: Do you want to see how many people (inaudible)?

CHAIR WEISSER: Oh, I'm sorry. I didn't see anyone. Is there any public comment that anyone wants to make on this item? Charlie. Thank you, Jude. I didn't think of that.

MR. PETERS: Mr. Chairman, Committee, the doctor mentioned something -

MALE COMMITTEE MEMBER: The mic is off.

CHAIR WEISSER: You have to push the mic.

MR. PETERS: Yes, Mr. Chairman and Committee,
Charlie Peters, Clean Air Performance Professionals representing
the Coalition of Motorists. You brought up an interesting
subject and I'm not knowledgeable enough to have a firm opinion,
but I want to throw it out there just because. I have a friend
in Oklahoma who has a Chrysler product that he's been having
problems with, with a hard engine dock. Apparently that's been
a fairly prolific problem in the marketplace and I was talking
to a trainer and he indicated that there are oils that are
recommended for a lot of the fleet now that are not being used
for that fleet, that's allowing degradation to take place in the
motors which could very well be impacting this. So I'll just
throw it out there that there - I have a source that's
indicating that the kind of oil being used, the spec of the oil

being used, can be a very significant factor in deterioration.

And I'd be happy to put somebody together with somebody who has some very strong opinions about that that's been trying to get some attention to it thinking that it's very important to maintaining cars as well as emissions.

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CHAIR WEISSER: Thank you, Mr. Peters. You might want to direct that person to BAR to inform their staff. Chris?

Mr. Chair, members of the Committee, MR. WALKER: Chris Walker on behalf of the Automotive Repair Coalition and the California Service Station Automotive Repair Association. Quick question. I mean - in hearing this presentation this morning, it seems to me that what you have is you have the burned oil as the problem and that is a function of a malfunctioning vehicle. Either it's burned rings or it seems to me valves or it seems to me that the cars are emitting burnt oil through a function of an engine not working properly. And it seems to me that the question is for the Committee, is there a link between the hydrocarbon cut points, H-C cut points, that we now employ in the smog check program. Are they relevant in capturing this unburned oil? In fact, are these cut points sufficient? If they are relevant, are they sufficient and adequate, and should the Committee be looking at H-C cut points. And if they are adequate, what's going on? Where in the system is it breaking down? These are typically older vehicles, I would presume, cars that are receiving specialized treatment

from the State of California to ensure they're being inspected properly, to ensure they're being repaired properly. And the evidence, as presented today, suggests that perhaps they're not and one would want to look at the process on how we're treating these older vehicles, how we're testing them, and how we're fixing them. Thank you.

CHAIR WEISSER: Thank you. Any further comments?

Charlie, one more, really briefly.

MR. PETERS: I have had a position and made suggestions to the Committee all the way back that just allowing the mechanic to fail the car for smoking and allowing them to fix it, the doctor mentioned that we're getting a significant participation and performance out of just giving somebody a voluntary heads up. If the smog check actually allowed mechanics to fail cars for smoking and required a repair, maybe we could make some really significant impacts.

CHAIR WEISSER: Thank you. Okay. We're going to take a break now until twenty of 12:00, according to that clock. And we will start up on time, and we'll then deal with the two updates from BAR and ARB, at which time we'll take a break for lunch. Thank you.

(Off the Record)

CHAIR WEISSER: Okay. If we could take our seats.

Okay. The meeting will come back into order. Our next agenda item is to receive updates, first from the BAR and next from the

ARB. Is there someone from BAR who'd like to give us an update as to activities?

MR. GUNN: Good evening or good afternoon. Actually, good morning, Mr. Chairperson and Committee members. I don't have a report. BAR's -

CHAIR WEISSER: Could you identify yourself for the transcriber?

MR. GUNN: Oh, I'm sorry.

CHAIR WEISSER: I appreciate it. (overlapping)

MR. GUNN: Marty Gunn with the Bureau of Automotive Repair. And I didn't come prepared with reports. The Air Resources Board is going to give the reports, from my understanding, on low-pressure fuel evap and cut points.

CHAIR WEISSER: Okay. But I'm glad you folks are here in case there's something you might want to add onto it. Are there any other activities of general interest to the Committee that you'd like to mention that have taken place in the last month? Nothing.

MR. GUNN: I think we're pretty caught up on questions.

CHAIR WEISSER: Okay. Very good. Well, any questions from the Committee? Mr. Pearman.

MEMBER PEARMAN: I noted that we had gotten - I think it was e-mail - BAR's response to Committee questions and one of them was Wayne stating that there was a question about why they justified not raising the repair cost limit above \$450.

1 And last meeting Wayne said we'd have that analysis complete and 2 be able to get a report back to you by the October meeting. 3 any response to that? 4 MR. GUNN: I believe the last response was is that out 5 of 1.5 million failures a year there were twelve hundred repair 6 cost waivers issued, which was something like a .08 percent waiver rate, which is a really, really small number. And being 7 8 such a small number, it just didn't seem to be very high on the 9 radar screen. 10 MEMBER PEARMAN: So that was the in-depth analysis 11 since the last report you're saying or you just -12 MR. GUNN: To the best of my knowledge, yes. 13 MEMBER PEARMAN: Okay. 14 CHAIR WEISSER: Which question number was that, Robert? 15 I'd like to - I remember reading that -16 Repair cost limit -MEMBER PEARMAN: 17 CHAIR WEISSER: Repair cost limit number one? 18 MEMBER PEARMAN: Yes. 19 CHAIR WEISSER: So you're doing an in-depth analysis. 20

You're going to be able to have a report back in October, but will you be giving us the report per se - you know - the data sets and the methodology you used for the analysis?

MR. GUNN: Not to my knowledge. What I know of this, and I'm transitioning into this -

CHAIR WEISSER: Sure.

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MR. GUNN: But my knowledge of this was that because the number was so small and there would be - you know - activities and resources allocated to changing the number, it just wasn't -

CHAIR WEISSER: So I respect the perspective or the position that you might take following your analysis. I guess what I'm asking is will that analysis be shared with this Committee so this Committee could independently look at it and come to its own conclusion?

MR. GUNN: I will find that out for you.

CHAIR WEISSER: The chief is in the room. Chief, do you have anything to offer as to whether the Committee is going to be able to get that analysis?

CHIEF ROSS: Ross, BAR chief. Getting the data that we have is fully available to the Committee any time.

CHAIR WEISSER: We appreciate that. So has the study been completed, your study on -

CHIEF ROSS: You're saying study and I'm not exactly sure exactly what the specific question preceding Wayne Ramos' response of the item was.

CHAIR WEISSER: Okay. The question was what percent of smog check repair exceed \$450? That's what it says on here.

CHIEF ROSS: And fundamentally, as Mr. Gunn said, out of 1.4 million failures there were twelve hundred repair cost waivers issued for vehicles that needed repair. So 1.4

million divided into twelve hundred is going to tell you what the percentage of the impact of those waivers was, and that's what he said, .08 percent.

CHAIR WEISSER: Okay.

CHIEF ROSS: Okay. Now, beyond that, in terms of what each of those individual twelve hundred waivers were or how they were documented, that would take an in depth analysis by the referee's data on a case by case basis because that kind of data is not cataloged relative to each individual case.

MEMBER LAMARE: Mr. Chairman?

CHAIR WEISSER: Jude?

MEMBER LAMARE: Sorry (inaudible).

MEMBER PEARMAN: Well, just to clear then - I mean - the question that occurred before was that the decision not to increase the cost limit was based on some rationale and that's what Wayne was saying we're going to analyze. That's exactly why we're not doing that. So seeing this thing, the reason they didn't increase it was the numbers were so small it was irrelevant. But I just wanted to make sure if that's the answer or not.

CHIEF ROSS: Yes. Yes, Mr. Pearman.

MEMBER PEARMAN: Okay.

CHIEF ROSS: That's correct.

CHAIR WEISSER: Jude?

MEMBER LAMARE: Chairman, I think perhaps the Committee has in mind another scenario in which the waivers don't play a role. And that is that we have heard that cheaper, quicker fixes are being used instead of more thorough, durable repairs, which means that there are alternatives for repair that allow a repair technician to fix a car so that it will pass smog check but will not necessarily have durable repairs for the duration of the two year period that we expect it to be fixed for and that a factor in this decision is the cost waiver limit so that the Committee, as I understood it, was asking about raising the limit so that cars that otherwise might be facing a cheap fix — a cheap and less durable fix would have the option of doing the more thorough fix using the cap program. Can anyone else on the Committee —

CHAIR WEISSER: Yeah, let me - okay.

MEMBER LAMARE: - clarify or (inaudible)(overlapping)

CHAIR WEISSER: I'll jump on that. I think in the last - in the BAR/ARB report there was a discussion on the durability of repairs and that was an issue. I think it was highlighted in particular by some folks from ARB. I think Member Lamare - you know - identified the precise aspect of the repair cost waiver limit that is of interest to this, and that is of interest in relationship to that question. In other words, would increasing the limit before (tape change) - waiver result in improving the nature of the repairs that are made to failing cars so that they

stay in good repair longer than that which we currently see in practice. Is that analysis being done by you or - to your knowledge?

CHIEF ROSS: I don't know if that question was ever - excuse me, Mr. Chairman.

CHAIR WEISSER: Sure.

CHIEF ROSS: I don't think that question was ever really conveyed. It is a different kind of question rather than just saying why have you not moved the repair cost waiver?

Because that kind of analysis would then also dip into looking at the vehicles that have been repaired to pass that didn't in gender over \$450 limit and then trying to assess whether you could've spent \$150 or \$200 more, and would that have then generated a greater gain and a difference between failure and now passing. So that kind of data would really be I think a very deep probing study because it kind of goes beyond the repair cost waiver, but it gets into I guess how much more H-C and - yeah and -

CHAIR WEISSER: Yeah, I think it would.

CHIEF ROSS: - and getting into literally the comparison of a lot of repaired past vehicles.

CHAIR WEISSER: Uh - huh.

CHIEF ROSS: And then projecting if we'd done more - you can't say repair because you've already fixed it to the pass point. So if you'd done more work on it. And so I'm willing

to, if you would like to maybe articulate the concept of the question you'd like us to take a look at -

CHAIR WEISSER: Well, actually, I think you've already done that in the BAR/ARB report, which highlights this as an issue area, identifies that - my understanding was there was some work going on to study whether or not more durable repairs that would in fact exceed the existing waiver limit would be -

CHIEF ROSS: Yeah. Mr. Chairman, you might, I believe relative to the new joint contract that BAR and ARB is developing with the research vendor, the topic of repair durability or station effectiveness I think is one of the top topics of research. And you might clarify that with them. I know our two teams are working on the scope of work statement for that contract.

CHAIR WEISSER: Well, perhaps when the ARB gives us their status report they can bring us up to date on that aspect of this.

CHIEF ROSS: I know that's in the development in terms of the tasking, so -

CHAIR WEISSER: Okay. Roger?

MEMBER NICKEY: I just wanted to comment. It sounded to me like for a minute that we were confusing the cap limit with the repair cost waiver limit and they're two complete separate programs, two totally different.

CHIEF ROSS: Yes.

MEMBER NICKEY: And I just want to address one more thing on longevity of repairs. Somewhere you've got to address customers fix their own. They get an estimate back that says \$800 and the guy says screw that. I'm going to go down to Midas and put a cat and an O-2 on it and see if it passes, and many times they do. And for that, that was taken completely out of the system. It was just marginally fixed. That will last about two months and the cat will burn up, and you're right back where you started. Then he's got another two years to go before he has to have it checked again.

CHAIR WEISSER: Right. We'll start from Dennis and move down south.

MEMBER DECOTA: In all fairness to Chief Ross, I don't think you were present at the meeting when that discussion took place.

CHIEF ROSS: I wasn't. I do follow it though on the web cams when I'm in the office.

MEMBER DECOTA: I understand.

CHIEF ROSS: And I do read your transcripts, so
MEMBER DECOTA: And Roger's exactly correct. It had to
do with the comparison versus cap and the repair on the cost.

CHIEF ROSS: YES.

MEMBER DECOTA: And - you know - what we're trying to do is find out - you know - what can a longer and more durable repair look like? And we know that from testimony from industry

in cap stations that BAR has a tendency to only authorize the repair to a pass point.

CHIEF ROSS: Correct.

MEMBER DECOTA: There was no ability for BAR or industry to go beyond that point and that we should look in depth with this. So I have two recommendations. One is I would like to see staff prepare any questions that the Committee has asked during session of ARB or BAR or anyone else, and have in our minutes a little tickle issue for us and to make sure those are sent to the proper parties at both agencies or where that's to be directed so that we don't have to get into trying to tax our memories on exactly what was said. I think that would be a much more professional way -

CHIEF ROSS: (inaudible) (overlapping)

MEMBER DECOTA: - for us as a Committee and give you the opportunity to take and answer the question without looking like you're trying to shuffle, and you're not.

CHIEF ROSS: No, I understand what you're saying.

MEMBER DECOTA: You know what I mean?

CHIEF ROSS: And also, I appreciate that because that allows me -

MEMBER DECOTA: To assign it.

CHIEF ROSS: - to go back into my organization and go into the deep well where there are people who talk in these mysterious engineering and scientific terms and see what we do

know versus what we think we know. And oftentimes what we think we know then becomes that's the way it is and my view is that the way you want to use us as resources is you want the best quality information we can put our hands on.

MEMBER DECOTA: Right.

CHAIR WEISSER: I think Dennis, that your suggestion that we document and - you know - for both the Committee and frankly the agencies and the public the questions we're asking them to pursue in writing is a terrific idea. However, I do not think it should be part of the minutes, which are summary minutes. I think it needs to be a separate piece of paper that staff prepares that -

CHIEF ROSS: See, I think also it might cause your questions to allow you to see what has been verbalized and it may make (unclear) to clarify exactly what you're really asking. So it works both ways.

CHAIR WEISSER: You bet. I mean - we recognize that sometimes we're not articulating the questions as clearly as possible and putting them down on paper is helpful to everybody. So I will follow and adopt your suggestion, Dennis. But we'll do it not as part of the minutes, but as a separate written document. Yeah, please go on. Bruce? I'm sorry.

MEMBER HOTCHKISS: Yeah, and this isn't really a follow up on that question as I guess a different part of that question or a new question based off of it. And it just seems

to me if so few waivers are being issued that maybe it would be more cost effective just to retire those vehicles instead of - I mean - my understanding is that the waiver is issued to a vehicle that does not pass. So in fact -

CHIEF ROSS: It only does not pass though for one year.

MEMBER HOTCHKISS: Right. But it still, it does not pass.

CHIEF ROSS: One cycle.

MEMBER HOTCHKISS: One test.

CHIEF ROSS: One cycle.

MEMBER HOTCHKISS: So it's on the road for two more years polluting, in some form or - and I don't know if you have the stats as to how badly the vehicles failed. And if I'm correct, they cannot be a gross polluter. So they're in between passing and gross polluter status. And it just seems to me that - and this isn't necessarily aimed at BAR -

CHIEF ROSS: No, I don't think so.

MEMBER HOTCHKISS: - as kind of a rhetorical question that it might be more cost effective to retire the vehicle.

CHAIR WEISSER: Bruce, I think there are other pretty important issues that have fed into that policy and in fact the statutory structure surrounding that policy. In particular, the desire by the elected officials to allow the owner of the vehicle sufficient time, recognizing that she or he either needs

to fix that vehicle so it will pass the next time or get ready to buy a new vehicle. So they don't want to slam the lid that quickly on the vehicle owner.

MEMBER HOTCHKISS: Yeah, I understand that but it seems to me that if I remember correct - I mean - back when the waivers were instituted way back when, there were a lot more of them than there are now and quite possibly the legislature might want to rethink it. I mean - if there's so few -

CHAIR WEISSER: Well, I'm kind of curious as to whether when someone requests a waiver and receives a waiver, if they're also given information from the state or from BAR's program or from the local air district that the vehicle resides in regarding the scrappage opportunity that might exist. Well, I guess it would only exist in terms of the local programs because you require a vehicle to pass -

CHIEF ROSS: It does have a window of circumstance.

CHAIR WEISSER: Yeah.

CHIEF ROSS: Of course, we are talking about an environment when the certification is an issue if you look at the waiver and while you're getting it repaired. So the other point is that all the waivers are issued through the referee and the referee's system does a very good job in terms of providing data about the different programs.

CHAIR WEISSER: Okay.

1 CHIEF ROSS: And I understand what you're saying though. 2 3 CHAIR WEISSER: Thank you very much, Chief Ross. 4 CHIEF ROSS: You're welcome. 5 CHAIR WEISSER: Thank you. We're going to wait until 6 both agencies for public comments. So we're going to take the 7 ARB right now and then get public comments after. ARB? Good 8 morning, Sylvia. 9 MS. MORROW: Yeah, it's still morning. Good 10 morning. 11 CHAIR WEISSER: Check. 12 MS. MORROW: Yeah, good morning, Mr. Chairman. 13 Sylvia Morrow with the California Air Resources Board. 14 first like to give a couple little updates on things before I go 15 into the presentation. The first is that you'll be happy to 16 hear that the ARB/BAR joint report has been sent to the 17 governor's office and is now awaiting his action. 18 CHAIR WEISSER: Well, congratulations to both agencies. 19 Has it changed any or is it still what the Committee saw? 20 It has been clarified. So you -MS. MORROW: 21 CHAIR WEISSER: Now, there's a second inter - excuse

There is a second quote interesting unquote word that I've

MS. MORROW: That's right.

heard today, clarified.

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CHAIR WEISSER: Okay.

MS. MORROW: Yes, it has been clarified.

CHAIR WEISSER: Well, we're anxious to see if and when it emerges from the governor's office, and then we'd expect for the agencies to present it to us in its new clarified form -

MS. MORROW: Yes.

CHAIR WEISSER: - so that we could understand what changes may or may not have been made in the report. But that's good news. Thank you.

MS. MORROW: Okay. And the second item that I'd like to bring up is - you know - per Dick Ross' conversation regarding our current contract with Sierra and one of the tasks - you know - as he discussed, was to look at - you know - why do cars fail within six months of passing a smog check and being repaired? And so we have recently had a meeting with ARB and BAR to discuss a proposal that Sierra had given us. We still see some issues with that proposal and so ARB and BAR are going to be jointly getting together with the contractor to discuss the issues. And then subsequent to that, we will be providing the IMRC - we will be soliciting public comment on our proposal. So I just wanted to pass that.

CHAIR WEISSER: You will be soliciting public comment before you sign the proposal you mean or -

MS. MORROW: No, it's a test plan.

CHAIR WEISSER: Ah, so you -

_	MS. MORROW: It's - I'm sorry. That's - you know -
2	we will be soliciting your comment on the test plan and what we
3	envision the test plan looking at.
4	CHAIR WEISSER: Great. And the opportunity for the
5	public to also provide you comments.
6	MS. MORROW: Exactly.
7	CHAIR WEISSER: You want to use the IMRC meeting as a
8	vehicle to get public comments?
9	MS. MORROW: Exactly.
LO	CHAIR WEISSER: Very good. When do you think that will
11	be?
L2	MS. MORROW: Well, we're still in the process of
13	setting up that meeting and we're hoping by the end of the year.
L4	CHAIR WEISSER: This year?
L5	MS. MORROW: Yes. I'm hoping by the end of this
L6	year.
L7	CHAIR WEISSER: Okay. Thank you.
L8	MS. MORROW: Okay.
L9	CHAIR WEISSER: Dennis?
20	MEMBER DECOTA: You mentioned you went out for contract
21	proposal.
22	MR. MORROW: Yeah.
23	MEMBER DECOTA: Would you supply IMRC staff with the
24	contractors that were on that list?
25	MS MORROW: That we sent it out to you

MEMBER DECOTA: Right.

MS. MORROW: I can try and find it but I think - I don't know if you were at the last meeting, Dennis.

MEMBER DECOTA: I was not.

MS. MORROW: Okay. And we did send the proposal out to numerous contractors and when we received the bids we received one bid for the contractor and many of the contractors that we had sent it to were now subcontractors for the main contractor.

MEMBER DESOTA: Okay.

MS. MORROW: Okay?

MEMBER DESOTA: But would you supply that information to our staff?

MS. MORROW: Okay.

CHAIR WEISSER: Thanks, Sylvia.

MS. MORROW: Okay.

CHAIR WEISSER: Please continue.

MS. MORROW: All right. So what I'm going to discuss now is I have - oh, first of all, okay. I'm going to be providing you two presentations today. One regarding the low pressure evap and the other regarding the post repair cut points. The other two items, the remote sensing and the OBD-2 report have still not been completed to agency satisfaction, so they're still in the review process. So I don't have anything further to discuss on those. All right. Oh.

All right. As you know, the low-pressure evaporative test has been discussed very thoroughly here at the IMRC Committee. And so I'm going to go into basically what the issues were for implementing the test. First of all, I'm going to discuss the test background, kind of our legal commitment, technical issues with the tester, our findings, and next steps.

And just on a preference, this is - you know - ARB's perspective at this point and we will be supplying the Bureau of Automotive Repair with a report, it's in a draft form right now, in which we will discuss a lot of the environmental impacts associated with the low pressure evap. Not an EIR report, but basically the cost effectiveness, how we came up with the emission reductions and stuff like that. And so that report is in draft form and will be transmitted shortly to the Bureau of Automotive Repair.

Okay. Test background. First of all, back when USEPA designed the enhanced program the low pressure evaporative test was part of their enhanced smog check performance standard. And so in order to meet the enhanced performance standard, ARB and BAR looked into implementing the low-pressure evaporative test. First of all, it identifies a leak in the evaporative control system and it is applicable to '76 to '95 model year vehicles. The evaporative emissions are checked for '96 and newer vehicles evaporative emissions are checked via the onboard diagnostic computer.

Okay. Our legal commitment for the low pressure test is the low pressure evaporative test is the only outstanding commitment we currently have with the enhanced smog check program. Per our August 2000 letter to USEPA, we listed a (Off the Record)

CHAIR WEISSER: It's back on.

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MALE COMMITTEE MEMBER: It's back.

MS. MORROW: Is it back on? Oh, sorry. In 2000, ARB and BAR jointly evaluated the smog check program when we were falling short. And so we provided USEPA with a list of improvements and to this day, we have implemented all those improvements except for the low pressure test. Failure to implement the test could jeopardize about 2.5 billion in transportation funding due to conformity labs statewide. Basically what that means is that we include these benefits in the out years to show transportation conformity. If an agency can't demonstrate that they conform to the sip, the federal government doesn't allow their funds to be used for transportation projects. There's also potential litigation for failure to implement and that is allowed under the Clean Air Act.

As stated earlier and you have heard before, we had many technical issues to address before implementing this program.

Last year Chief Ross was looking, reviewing a potential regulation for this device and came across many technical issues

that needed to be addressed and they were important issues. The first issue is understanding he false failure rate, developing tester technology accurate for California conditions, understanding the repairs and associated emission benefits associated with the low pressure evaporative test, gauging the portion of the fleet that could be tested, and addressing equipment costs.

First of all regarding the false failure rate. We have now remedied the false failure rate issue. Health and Safety Code 44013 requires that a false failure rate be less than five percent for any equipment or part, anything due to the smog check program. And what that basically means is that you cannot have more than five percent of the cars fail that do not have a defect on them. So -

CHAIR WEISSER: That don't have a defect or that upon retest would pass?

MS. MORROW: That do not have a defect. So basically what that means, that the tester is not accurately identifying that there is a failure. The tester is identifying failures in cars where there is a pass. So in 2002, there were some prototypes tests that were done that showed a false failure rate in excess of five percent, almost at like 50 percent level. And so we were very concerned with that issue. And again, it was we're using a prototype tester. In 2005, ARB in consultation with BAR tested 23 vehicles to examine this false

failure rate issue. And luckily, the test results showed a zero percent false failure rate.

Tester technology needed to be accurate for California.

Early low-pressure evaporative testers that were used in other states in centralized programs did not compensate for fuel temperature, fuel volatility, and tank volume variability's.

The tester would allow false passes. And specifically, the false passes would most likely occur during the summertime when the temperature was increased. And so we thought that was very important. We didn't want the tester to falsely pass vehicles, especially during the most critical time of the year for ozone formation. So BAR worked with the manufacturer to develop a tester that compensated for all three of these variables.

Evaporative failures can be repaired. I know that is one of the issues that you hear at times for many of the repair industry is how - you know - can these failures be repaired? So ARB and BAR need to understand the repairs, not only for the emission benefits but also to determine the cost effectiveness. In 2002 and 2005 ARB repaired 33 vehicles with identified evaporative emission defects. The majority of the repairs were associated with hoses, fuel tanks, filter, and accented fuel sending unit. And the average repair cost was approximately \$160 and the majority of the repair cost was labor.

Evaporative repair emission benefits are significant. In 2002 ARB conducted pre and post repair diurnal emission tests on

ten vehicles and those are called shed tests. In 2005 ARB conducted pre and post repair tests on three vehicles and hot soak emission tests. We also used data from a testing done for USEPA that looked at both pre and post repaired diurnal, hot soak, and running loss emission tests on eleven vehicles. Using this data we estimated that the emission reductions in calendar year 2010 were about 14 tons per day of reactive organic gases statewide. In addition to reducing reactive organic gases, you also reduce toxic exposure to the people driving the cars.

Over 90 percent of the fleet can be tested. The testable fleet from the other centralized programs, Kentucky, Arizona, and -

MALE COMMITTEE MEMBER: Delaware?

MS. MORROW: Delaware, that's right, had various stages of how many — what percentage of the what we call fleet that this tester was applicable to, '76 to '95 model years, actually had the test being able to be performed on them. And it was strange that testability ranged from 60 percent in Arizona to 18 percent, I believe that was Delaware or Kentucky. I'll have to check. So we were concerned with that issue because that really impacts not only the cost effectiveness, but the emission reductions.

So in 2005 BAR conducted roadside tests on over 1500 vehicles to evaluate testability. And what they found out was

that 91.8 percent of the model year in '76 to '95 fleet could be tested under optimum conditions.

CHAIR WEISSER: What does optimum conditions mean, Sylvia?

MS. MORROW: Well, since that time there are many improvements such as a pinch point and data base that shows the technician where to pinch off the hoses, locations, and also motivation. But you do have to remember that these were conducted on the roadside. So the technicians out there did not have a lot of time to be able to look around for the test. So we thought that, like I said, that under optimum conditions that 91.8 percent of the applicable fleet could be tested.

Equipment and consumer costs are manageable. According to BAR the equipment costs range from \$2500 to \$3000 with a \$100 annual maintenance cost. We're assuming that stations will likely amortize the cost over five years so it'll be \$600 to \$700 annually per station. BAR and ARB also estimated the consumer cost. Due to increased test time and equipment cost we estimated that the smog check price would increase by about \$7.50 per test.

Another thing that we did look at - you know - especially with the rising fuel costs, that by - basically the evaporative losses are unburned hydrocarbons, i.e. unburned fuel. So by reducing those emissions consumers would save about 4.5 million dollars annually in fuel costs.

CHAIR WEISSER: So you mean if I spend \$7.50 more I'm going to get 4.5 million dollars?

MS. MORROW: Statewide. Statewide for all the consumers.

CHAIR WEISSER: So what's the \$7.50 translate into statewide?

MS. MORROW: \$7.50 - you know what? I don't have that number off the top of my head but I can find that for you.

CHAIR WEISSER: Because that's kind of apples and oranges.

MS. MORROW: Okay. Here are our findings of what we found out from ARB as far as looking at the low pressure evaporative tests. We've determined that it does have a false failure rate less than five percent, that the equipment compensates for variables that are important in California, the average repair costs are about \$150 per repair, the 2010 emission reductions are 14 tons per day reactive organic gases, 91.8 percent of the '76 to '95 model year fleet can be tested, equipment costs run between \$2500 and \$3000, and the cost effectiveness is about \$6700 per ton.

The next steps. We encourage BAR to begin their regulatory process. After they've gone through their regulatory process and it meets all their requirements for regulations, we anticipate then at that time the manufacturers will produce and

certify a low-pressure evaporative tester, and then the stations would implement the low pressure evaporative test.

CHAIR WEISSER: Sylvia, I thought I heard you say you're encouraging BAR to conduct the regulatory process. Or is BAR starting the regulatory process?

MS. MORROW: Well, they're waiting for our report.

CHAIR WEISSER: Ah, which will be given to them?

MS. MORROW: Uh - huh. And I'd have to - I don't think that ARB has the authority to tell BAR to. We -

CHAIR WEISSER: I didn't either. So what happens? You produce your report. You give it to Chief Ross. Chief Ross looks it over and makes a determination as to whether he believes that they should go forward?

MS. MORROW: Well - I mean - they will have to begin - I mean - I would assume that they would begin their regulatory process. You know - during the regulatory process they will receive comments from both consumers and industry and business, and they would have to address those comments. Right now, these are the issues that we know about. There may be issues that come up -

CHAIR WEISSER: Yeah.

MS. MORROW: - that we are not aware of that during the regulatory process may come up.

CHAIR WEISSER: But they don't need to initiate a regulatory process. I mean - if Chief Ross gets the report and

1 he thinks you're full of beans, he could just say I don't like I'm not going forward. 2 3 MS. MORROW: I can't really answer that question. CHAIR WEISSER: I mean - if I were in your shoes and I 4 5 got something I didn't agree with and I didn't want to deal 6 with, I'd probably just sit on it. I mean - that question, just 7 for this transcription, was directed in jest to Chief Ross. 8 MS. MORROW: Yeah. 9 CHAIR WEISSER: I have a couple of questions and then 10 we'll ask some of the other Committee members to pop in. 11 MS. MORROW: Okay. 12 CHAIR WEISSER: What other states are doing evaporative 13 testing? Are there three or ten or -14 MS. MORROW: No, just those -CHAIR WEISSER: Just those three centralized programs? 15 16 Arizona, Kentucky, and Delaware, and MS. MORROW: 17 from my understanding, Kentucky - one of my last conversations 18 with them, they indicated they were going to eliminate it from 19 their smog check program. That was their proposal. I don't know if they have yet, but they were considering. 20 21 CHAIR WEISSER: Because?

They didn't express that to me.

CHAIR WEISSER: That would be kind of interesting to

Yeah.

MS. MORROW:

MS. MORROW:

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find out.

CHAIR WEISSER: They were the one that had the, was it the 90 percent ability.

MS. MORROW: 18.

CHAIR WEISSER: It's 18 percent, I don't know. It's Kentucky, what can you say?

MALE COMMITTEE MEMBER: (inaudible)

CHAIR WEISSER: Oh, that'll get me in my basketball tournament, I know. BAR and you indicate in tester technology, making it accurate -

MS. MORROW: Yes.

CHAIR WEISSER: - that you worked with the manufacturers to develop a tester.

MS. MORROW: BAR did.

CHAIR WEISSER: BAR.

MS. MORROW: Yes.

CHAIR WEISSER: Or you, I should not ever. BAR worked with the manufacturers to come up with a tester to compensate for these things. I'm confident that those modifications cost money and added to the - you know - cost of the piece of equipment, which is a substantial concern to many of the shop owners, as you know.

MS. MORROW: Well, I think, Mr. Chairman, that is - you know - originally, years back I think ARB and BAR had anticipated that the tester would cost approximately \$1100. So

the increased tester cost reflects the added research and development that the manufacturers have put into the tester.

CHAIR WEISSER: So the tester cost went up about 250 percent in order to make these modifications. And of course, during that period of time, the fleet that would be captured by this went down in size.

MS. MORROW: Yes, but even though the fleet has gone down, those vehicles are still out there and it is still a significant emission reduction strategy.

CHAIR WEISSER: And a cost effective one I note.

MS. MORROW: Yes.

CHAIR WEISSER: So that's a very, very reasonable amount. You indicate that the emission reductions that you'd anticipate would be 14 tons per day of reactive organic compounds. And what's that comparable to in terms of some other state programs that we deal with?

MS. MORROW: Well, just - you know - just for information - you know - in 2003 ARB developed a statewide strategy and there were many emission reduction strategies in there that were in the single digit ton per day range. And -

CHAIR WEISSER: How much does the - oh, I'm sorry.

Please excuse me.

MS. MORROW: And in addition, ARB is finding that achieving or finding reactive organic gas reductions are harder to find these days.

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CHAIR WEISSER: So this would go to sort of the top of the list in terms of the amount of reactive organic?

I don't think - I don't know. MS. MORROW: I'd have to look. I can't answer that question.

CHAIR WEISSER: But it would be -

I think it's a decent sized emission MS. MORROW: reduction strategy.

CHAIR WEISSER: Decent size. And what's the total emission reduction strategy in terms of statewide tons per day that you get out of the smog check program?

The smog-check program, both the basic MS. MORROW: and enhanced program, reduces about 500 tons per day of NOX and reactive organic gases statewide.

CHAIR WEISSER: How much are reactive organic gases? want to get a number that's comparable to the 14 tons.

> You know what? MS. MORROW: Oh.

CHAIR WEISSER: You don't know.

MS. MORROW: I don't know that off the top of my head, but just for informational purposes, I recently did an analysis where actually evaporative emissions are now 43 percent of the emissions of the light duty fleet. So that gives you hopefully that gives you (inaudible). (overlapping)

CHAIR WEISSER: But is that 43 percent - is that just the fuel evaporative or is it also evaporations from tires and paint and the seats of the car?

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That would include - the 43 percent MS. MORROW: evaporative is the total evaporative emissions from i.e. running losses when the car is driving, when it is resting and you have emissions coming off it while it's cooling down, and there's another procedure that I'd have to look at.

> CHAIR WEISSER: But is it fuel only or are you -I can't say that. MS. MORROW:

CHAIR WEISSER: So because I know that there are substantial emissions that come out of new cars from new tires, from paint jobs, from the baking out albeit slow of the upholstery and other internal functions. I've heard those are, as you were saying, incredibly significant portions.

You know - I don't know what portion of MS. MORROW: it is out of that.

CHAIR WEISSER: I for one would be interested in getting a sense of comparability.

> MS. MORROW: Yeah.

CHAIR WEISSER: Where does this fit in terms of the -

MS. MORROW: And I don't know if our testing that we do in the Almonte laboratory that's shed testing differentiates between those. So that would be something I'd have to find out.

CHAIR WEISSER: I'm curious about that and I'd ask you to find it out. You indicated that there are several periods where California tested cars, including the first one where we had difficulties through the more successful ones. Did we run

into situations where any of the cars were ruined, where the conducting the test destroyed some of the equipment and forced the consumer to - you know - did hoses crack and crumble? Did things explode? Did we get sued? Were there any problems that were caused by the testing?

MS. MORROW: I'm not actually aware of any of those problems, but in my mind if a hose was cracking to that point, that maybe it needed to be replaced anyway.

CHAIR WEISSER: But were there any problems in terms - MS. MORROW: Not that I'm aware of.

CHAIR WEISSER: Would you take that next step and ask the folks that were responsible for conducting these studies whether there was any equipment damage caused by the testing?

MS. MORROW: Okay.

CHAIR WEISSER: Okay? And I would be interested in you know - the cost effectiveness of this, I would say, is
pretty damn attractive for me. I am very much concerned over
the ability and willingness of the industries to make an
increased investment, considering it's a kind of a limited and
declining pool of customers. And I think that's something we'll
hear many questions about right now and comments on. So we'll
start with the comments and we'll start from the far right and
go to Mr. Williams first. Sorry. Gives me gripe.

MEMBER WILLIAMS: I have two questions. The first concerns your cost benefit analysis of the tons per day.

1 MS. MORROW: Okay. 2 MEMBER WILLIAMS: Is that only for the cars '76 3 through '95? 4 MS. MORROW: Yes. 5 MEMBER WILLIAMS: What about the cars that will be 6 under the OBD-2 system? 7 Well, because that was not - I mean -MS. MORROW: 8 this low pressure test isn't applicable to those OBD-2 systems. 9 They have their own system for checking evaporative losses. That was not included in this evaluation. 10 11 Remind me, currently, if an OBD-2 MEMBER WILLIAMS: 12 equipped car fails, or I guess it's a check engine light. 13 MS. MORROW: Yes. 14 MEMBER WILLIAMS: Does anybody have to do anything about it? 15 16 MS. MORROW: Yes, because a check engine light would 17 come on and either the consumer is responsible to their car and 18 will take it in, or when their smog check comes on they cannot 19 pass a smog check with the OBD-2 light lit. 20 MEMBER WILLIAMS: Are there any evaporative 21 emissions that are - the types of repairs that we're considering 22 for the older vehicles, are they actually being done on these 23 OBD-2 cars? 24 I don't have the answer to that MS. MORROW:

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question.

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because there's a tougher system on the older cars, doesn't it make it more imperative that the newer cars actually be fixed?

MS. MORROW: Yes, it is important for the new cars to be fixed.

What I'm trying to get at is

MEMBER WILLIAMS:

MEMBER WILLIAMS: No, I know it's important, but does it add to the pressure to fix them? If so, then this system actually has additional benefits.

MS. MORROW: Yeah. Well - you know - adding the low-pressure evaporative test to the smog check program, we still see that for OBD-2 cars there is a test for them. It's just a different test. And so when they're going through the smog check program the test will be there and if there are evaporative problems, they will be repaired.

MEMBER NICKEY: May I make a comment?

CHAIR WEISSER: Yes, please.

MEMBER NICKEY: The majority of the evap failures that we see come through on OBD-2 -

CHAIR WEISSER: Identify yourself first.

MEMBER NICKEY: I'm sorry, Roger Nickey. I own a test only. The majority of the evap failures I see come through on OBD-2 with the mill on is loose or missing gas caps.

CHAIR WEISSER: Thank you. Please continue.

MEMBER WILLIAMS: My second question concerns -

CHAIR WEISSER: Jeffrey, before you leave that question, I wasn't able to follow what you were trying to get at. Is your concept that gee, if you install - you know - if you started this sort of program for the older cars, you said you felt it would put more pressure on the newer cars being tested and repaired. But my understanding is that's the, from what you said earlier, Sylvia, that this pressure test is part in parcel of OBD-2. And if a car, during operation, exceeds limits through its OBD-2 system, that a light would come on and the next time they would come in for routine maintenance, they would be presented with the readout. And then presumably, they make a choice as to whether they're going to do a repair or just put black tape over the light or something. But in any event, they're going to get trapped in terms of dealing with it through their next smog check.

MS. MORROW: Right.

CHAIR WEISSER: But of course, the newer cars are exempted now up through the sixth year. So they don't get caught for four years or five years potentially after - you know - the OBD light might show a failure. Am I missing something there?

MS. MORROW: No, I think that you're correct on that. I mean -

CHAIR WEISSER: Now, presumably you wouldn't have many failures because it's new equipment.

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MS. MORROW:

Exactly.

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CHAIR WEISSER: You know - but was that what you were getting at, Jeffrey? I'm unclear.

MEMBER WILLIAMS: I was trying to get at that I think there's some slippage in the OBD-2 system.

CHAIR WEISSER: Compared to what this would be.

MEMBER WILLIAMS: Yes. People are just ignoring.

CHAIR WEISSER: Yes. Well, they can. I don't know if they statistically are. Okay. Dennis?

MEMBER WILLIAMS: No, I had a second question
CHAIR WEISSER: Oh, I'm sorry. You had one more. I'm

terrible.

MEMBER WILLIAMS: - about the false positives. So if I understand, 23 cars were tested. They should've passed and they all did. That doesn't seem a like a huge -

MS. MORROW: No, what -

MEMBER WILLIAMS: - sample to say that there are no false positives.

MS. MORROW: Well it was a - well, if one in 20 would've failed, that would've exceeded our five percent error of commission. At that time that was - you know - due to lab availability that was the sample that we selected. And it probably isn't as confident as we like it, but we do think that if the test is done properly that the tester will accurately identify a leak in the evaporative emission system.

CHAIR WEISSER: Thank you. Dennis.

MEMBER DECOTA: In the states of Arizona, Delaware, and Kentucky, do any of those three states use this exact type of equipment?

MS. MORROW: No, none of the other states use it and all the - I believe all three of the other states are centralized programs.

MEMBER DECOTA: Understood. Can we get some information from those states with regards to their equipment that they are using on evap and cost factors of that equipment, and also the targeted amount of tons per day that they were intending on getting, and if they have any information as far as what they are getting? The other part of my -

CHAIR WEISSER: Including the 18 percent success rate from Kentucky or -

MEMBER DECOTA: Right. I mean - there's a reason why Kentucky is trying to bow out of it.

MS. MORROW: Yeah.

MEMBER DECOTA: So I don't know if that's valid, but at least Arizona and possibly Delaware can shed some light on potential comparisons for us. Again, the cost of the equipment, if they have any results on their goal on what the tons per day were to achieve, and if there's any information on what the program is currently achieving.

CHAIR WEISSER: Dennis, you don't need to write this down because we're going to get a transcript and -

MEMBER DECOTA: All right.

MS. MORROW: Yeah. Okay.

CHAIR WEISSER: - we'll mail it to you. But I have a question, Dennis, that the equipment we know is completely different than the California equipment, than what they're proposing might be used in California.

MEMBER DECOTA: Exactly right.

CHAIR WEISSER: And so I don't know if any of the questions that you've asked will really provide data that's comparable to what's being proposed here.

MEMBER DECOTA: What if they were getting 13 and a half tons in their projection and are actually achieving that on a piece of equipment that cost 250 percent less?

CHAIR WEISSER: Excellent point, Dennis.

MEMBER DECOTA: Thank you.

CHAIR WEISSER: Great point.

MEMBER DECOTA: The other part of the issue is that 91 percent of the vehicles between the model years of, I believe it was '76 through '95, I might be wrong there, are subject - are testable.

MS. MORROW: Right.

MEMBER DECOTA: So nine percent are not.

MS. MORROW: And the nine percent could be due to things like canister location. The canister is in the wheel well. It could be due to hoses that are not pliable. And so those are the reasons for something not being testable.

CHAIR WEISSER: Is it model year? Is it by a certain car can't be -

MEMBER DECOTA: It could be model. It could be model year. It could be engine family. It could be many different things.

CHAIR WEISSER: Okay.

MEMBER DECOTA: The location of canisters in some cars are inaccessible. I.e. Porsche, you have to take the fender off to get to it. The point of the matter simply is are you going to exempt those vehicles and make recommendations, either you or the Bureau of Automotive Repair, to specifically within reg exempt those vehicles?

MS. MORROW: You know - and I'm not sure about that,

Dennis. I mean - that would come out during the regulatory

process, and when we actually - if it goes through that we

implement the test, I think - you know - we could provide them

with a - you know - stations with a list of cars where it is

inaccessible. You know - there are other situations where cars

are not currently being able to be tested on the dyno

(phonetic). BAR finds out of them, they develop policy and

1 things like that. So I think this just goes into the standard 2 (unclear). (overlapping) 3 MEMBER DECOTA: But it always lags behind from the 4 standpoint of reality of the consumer -5 MS. MORROW: Yeah. 6 MEMBER DECOTA: - in dealing with - and there is 7 another party here. 8 Well, and that's why - you know - it's very important for stations to participate in the regulatory 9 10 process to bring those kind of things out in forefront -11 MEMBER DECOTA: We try. We try. 12 MS. MORROW: - so that we find out - you know -13 ahead of time until - you know - after the fact. 14 MEMBER DECOTA: I strongly recommend, maybe to the 15 Bureau of Automotive Repair, that that issue be looked at and if 16 there can be any predetermination of cars that are unacceptable 17 to this test -18 MS. MORROW: Yeah. 19 MEMBER DECOTA: - at the time of the development of the 20 regulation. Now, that being noted and posted on the information 21 sheet so the industry can follow. 22 MS. MORROW: Yeah.

CHAIR WEISSER: That was the purpose of my question.

- many times for the test there is - you know - when you're

And Dennis, as you're aware - you know

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MS. MORROW:

going through the analyzing and you're conducting the test, there are options like not applicable or maybe -

MEMBER DECOTA: I agree.

MS. MORROW: - you know - for the low pressure evap there will be - you know - unable to perform. There may be an option and so what can happen that way is then BAR enforcement can look and take a look, wow. Shoot, this one station doesn't do tests on all these cars.

MEMBER DECOTA: Right.

MS. MORROW: But everybody else seems to be able to do it. And you know.

MEMBER DECOTA: But if simply the year, make, and model was in the software, when the industry technician took and put that vehicle in for that test, it flagged them that it can't be done, you would save a ton of money. All right?

MS. MORROW: Yeah. I mean - and I don't know enough about how the software's developed and things like that, but maybe there's a possibility -

MEMBER DECOTA: We're just making a recommendation.

MS. MORROW: - a possibility that it could be put in the VLT row when they bring up what the car is -

MEMBER DECOTA: Right.

MS. MORROW: - and maintained with that vehicle's record.

MEMBER DECOTA: Right. I think that - you know - the evap test is important, but I think it's important for a totally different reason. And I think it's one you should look at and I think BAR should look at. I mean - that is to reduction of on road fires. Just the emissions that we save from cars burning up on the side of the freeway would be very, very meaningful.

But - I mean - from a consumer's standpoint, this is(Tape Ends)

(Off the Record)

Tape 3 - Side A

CHAIR WEISSER: The reason I'm real interested in some of the larger numbers, the cost effectiveness numbers, the relative size of the emission reductions that this program could potentially get, is - you know - to see if there are - I mean - this sounds remarkable cost effective. I mean - that's a number that we're not going to see very often these days. We're looking at cost effectiveness numbers for volatile organic gases and organic compounds and - you know - multiples of that. Maybe that there's a - if this is such a good thing for the state and for the health of California citizens, maybe the state should be paying for this equipment through the monies that are collected already for the smog check program that are going into - where are they going into?

MS. MORROW: Yeah.

CHAIR WEISSER: Oh, I guess some place in the general fund that are being loaned. I mean - you have a situation where

there's been a loan of over one hundred million dollars of money collected from consumers, ostensibly for the smog check program, that have gone into the general fund. Then we know the law provides that those will be repaid. Maybe this is a way to repay the loan and repay the citizens in terms of improved health by the state coming forward using this money to cover the cost of this equipment. I'm just thinking out loud, but that certainly would be a, for me, if this is a good program for public health, a compelling reason to call for repayment of the money. Anyhow, just tossing that out there.

MALE COMMITTEE MEMBER: Two and a half million dollars.

CHAIR WEISSER: Mr. Williams? How much?

MALE COMMITTEE MEMBER: Two and a half mil.

MEMBER WILLIAMS: I have a few more questions. Mr. Chairman's questions just fired me to think some more. The \$7.50 you're imagining is the extra cost to the consumer just them presupposes that a smog check will be charged differently by the age of the car.

MS. MORROW: We would assume that they would pass that cost onto all consumers.

MEMBER WILLIAMS: So the OBD-2 owners are going to partly pay for it by - the \$49 is the price everybody pays?

There's no distinction?

MS. MORROW: I would - you know - that's what we assumed.

MEMBER WILLIAMS: Okay. Do you imagine that if a particular model is not at 18 percent failure rate but at a 62 percent failure rate that that becomes part of the high emitter profile and so it will affect whether that category of vehicle is directed to test only?

MS. MORROW: I mean - I think that that is something that we can definitely look into or BAR can look into if it's feasible.

MEMBER WILLIAMS: Final question, has any use of the cars that are being crushed now in the retirement programs being looked at to see whether they are particularly high emitters from this evaporative dimension?

MS. MORROW: I think not at this time because those aren't - you know what? To tell you the truth, I'm not exactly sure as far as the BAR's program, and I'd have to actually check as far as the state's program if we include evaporative emission benefits.

MEMBER WILLIAMS: It seems -

CHAIR WEISSER: These are all carbureted vehicles.

MS. MORROW: Yeah.

CHAIR WEISSER: They're going to be horrible in terms of evaporative emissions.

1 MEMBER WILLIAMS: Yeah, so it seems to me that we 2 ought to get that data as it goes along. Why not, right? 3 a further benefit to the retirement. 4 CHAIR WEISSER: Good point. 5 MS. MORROW: Okay. 6 CHAIR WEISSER: I hadn't thought of that myself. 7 MS. MORROW: Okay. I guess my next presentation. 8 CHAIR WEISSER: Well, let me just say -9 MS. MORROW: Oh. 10 CHAIR WEISSER: - are there any further questions here? 11 And I'm getting cries of hunger from the members. Please, 12 Roger. 13 MEMBER NICKEY: Wasn't there a beta test run with the 14 California system with the prototypes that are going to be used in California? 15 16 Yes, there was. MS. MORROW: 17 MEMBER NICKEY: Well, could we get the results on that? 18 I've always been curious how that worked out because this is the 19 equipment that we would be using in real life situation in 20 California smog checks.

MS. MORROW: Yes, BAR collected test results or they collected the data on the beta testing.

MEMBER NICKEY: Okay. I'll sure be interested to see what that was, if we can get that.

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Pardon me?

CHAIR WEISSER: I'm noticing Rocky, words appearing on my TV screen and where are those words coming from I ask?

MR. CARLISLE: It was just a thought since the test only tests all of the older model year vehicles.

CHAIR WEISSER: In other words, you're the generator of those words?

MR. CARLISLE: Yes.

CHAIR WEISSER: It's been fun knowing you, Rocky.

MALE COMMITTEE MEMBER: Where's my keyboard?

CHAIR WEISSER: He's got the power. Are there any other questions from members of the Committee? There has been a call or a plea for lunch from one member. Do we want to allow Sylvia to complete her second presentation or should we take a break? Those in favor of taking the break for lunch now, and it'll be an abbreviated lunch break, please raise your hand. One now, two now, three, okay.

MS. MORROW: Okay.

CHAIR WEISSER: Sylvia, I'm sorry. We're going to take a break for lunch and we'll get back at 1:30. Okay? Thank you. We'll adjourn for the moment.

(Off the Record)

CHAIR WEISSER: Okay. We're going to reconvene the meeting. The meeting will come back into session. Sylvia. We

don't have a full quorum, but we're going to be taking any actions that I'm aware of. But I'd like to get you started.

MS. MORROW: Okay. I'll hurry up before anybody gets here.

CHAIR WEISSER: Speak slowly. Please go.

MS. MORROW: I need the presentation.

CHAIR WEISSER: Ah. How do we get that presentation up? Thank you for your patience.

MS. MORROW: Okay. Okay. Again, this is Sylvia

Morrow with the California Air Resources Board and I'm going to

continue my presentation on my second topic, which is more

stringent ASM cut points. I'm going to provide a little bit of

a background, talk about the options, discuss their impacts, and

then talk about the pros and cons for each of the options, and

then potential next steps.

Here's a little bit of a planning background. In ARB's 2004 draft ARB/BAR report, we recommended evaluating more stringent post repair cut points. In addition, upcoming sips that are due in 2007 and 2008 for the eight hour and PM-2.5 standards will need reductions from all sources to meet the health based air quality standards.

Little bit on the cut point background. For light duty, current ASM cut points are divided into approximately 25 emission standard categories. And what that basically means is each emission standard category is driven by the dirtiest

vehicle. And what I'm saying is it's driven by the dirtiest vehicle that is operating at its designed level when it was certified in California. ARB and BAR proposed two analysis options and then Sierra Research analyzed the benefits for each option for three cut point scenarios.

The first option was a post repair cut point. What that basically means is more stringent vehicle specific cut points for vehicles that fail the ASM smog check inspection. The other option is lower initial cut points. And that basically is more stringent vehicle specific cut points for all ASM smog check inspections.

CHAIR WEISSER: Excuse me. When you say vehicle cut point - vehicle specific cut point, does that mean my car or my model of car?

MS. MORROW: Well, in the analysis, for some cars we were able to go down to more of a model year, model, engine size, make, and those things. But for some, due to statistical purposes, we had to go a level up. But it'd be more specific cut points, which more accurately represents your vehicle.

CHAIR WEISSER: But it's not on an individual vehicle basis. In other words, you wouldn't have a cut point different for someone who has passed or failed smog check or prior test.

MS. MORROW: No.

CHAIR WEISSER: Okay.

MS. MORROW: So Sierra Research did some analysis for ARB and BAR. And what they did is they took California vehicle grouping for specific failure rates and compared those to failure rates in Arizona and Wisconsin. Then vehicle groups that had a lower average failure rate compared to the Arizona and Wisconsin data were identified to be further analyzed. So the contractor then analyzed that data and current level cut points were lowered based on pollutant and test mode, and then passing vehicle ASM results were used to confirm the revised cut points. It's pretty detailed. I've tried to simplify the research as much as I can, but the real details of the research are in the Sierra Cut Points paper that I did provide to the IMRC Committee.

Here we'll talk about the failure rate impact. The current failure rate is about 10.4 percent, and this was using the data that was used for the Sierra Cut Point report. The post repair cut point failure rate would again still be 10.4 percent because we're not going to be failing any additional cars. With the lower initial cut points, the failure rate would go up between 11.9 to about 12.8 percent, depending on the different three scenarios.

The emission benefits. For post repair cut points, we estimated the emission benefits depending on how low we went, between 4.8 tons per day and 6.3 tons per day rog (phonetic) in NOX. To lower just the initial cut points for all vehicles, it

was about 5.5 tons per day to 7.8 tons per day ROG in NOX for the different three scenarios.

Cost effectiveness. The post repair cut points were very cost effective, ranging from \$3200 per ton to \$1400 per ton for ROG in NOX, while the lower initial cut points were higher, but still within what ARB considers cost effective, ranging from 1100 tons per ROG in NOX to 11.8 -

CHAIR WEISSER: 11,000.

MS. MORROW: Eleven - I'm sorry, 11,000. Thanks for the correction - to 11,800 tons per day ROG in NOX.

Right now I'll discuss the pros and cons of the post repair cut points. Basically, the pros are it's - you know - very cost effective. There's significant emission reductions. However, on the con side, ARB and BAR believe that a statutory change is required to implement a second level of cut points. Also, we believe that increased pre-inspections will likely erode the emission benefits. Basically, that in order - a car will just be pre-inspected until it passes so that the car would not be subject to the more stringent cut points.

CHAIR WEISSER: Ah.

MS. MORROW: We also think that it may complicate an already complicated smog check program and a software update would be required to implement this change.

The pros and cons of the lower initial cut points. ARB and BAR believe that no statutory change is required. The approach

is consistent with current practices. It has significant emission reductions. It's cost effective and more cars are repaired. The con would be still, a software update would be required to have the increased number of emission standard categories. Yes?

CHAIR WEISSER: The difference between the post cut point being higher versus the initial, were you thinking of the past points being the same in both cases?

MS. MORROW: Yes.

CHAIR WEISSER: In other words, we have raised them either before or after.

MS. MORROW: Yeah, the cut points are the same. It's just that for one option the cut points would only be applied if a vehicle fails.

CHAIR WEISSER: Got it.

MS. MORROW: Okay. Our findings are from ARB's perspective, the lower initial cut points is the preferred approach. We believe that it'd be easier to implement. It's consistent with the current smog check program. It identifies and repairs more cars, and it provides cost effective emission reductions.

The next steps would be, if we were to implement this program, would be BAR would need to develop regulations to lower the initial cut points, and BAR would need to modify their software to allow for vehicle group specific cut points.

CHAIR WEISSER: Thank you, Sylvia.

MS. MORROW: Okay.

CHAIR WEISSER: Excellent report. I will start off, as usual, with my little rundown of questions. I must admit, and if you could put the $4^{\rm th}$ slide on where you go cut point background, is that possible? Whoops. One more forward.

MR. CARLISLE: Forward.

MS. MORROW: Oh, it's not up on the screen.

CHAIR WEISSER: There we go. I'm going to reveal my ignorance.

MS. MORROW: Okay.

CHAIR WEISSER: What do you mean by the ASM cut points being divided into 25 emission standard categories?

MS. MORROW: I should have brought a copy of those. What it basically says is that vehicles are grouped per their model year and per their, whether they're a passenger car, light duty truck, heavy duty vehicle. And for some of them - you know - I don't have it right here in front of me, it's even a model year grouping. So it would be, and don't quote me on - I mean - this isn't the specific, but like the latest cut point is '96 and newer. So all '96 and newer cars, I believe '96, yeah, are subject to the same cut points.

CHAIR WEISSER: And we have 25 of those cut points based on model year, but you also said engine type.

1 2 on the - the cut points are based on the model year. However, 3 the level of the cut point is driven by the dirtiest vehicle in 4 5 6 7 8 9 10 11 12

that category. So let's say X brand vehicle, I'm not going to mention a brand, even though when it was certified in California it met the California emission standards out to its useful life, which at that time was three year and 50,000 miles. But since that time - you know - it is a car that is probably dirtier than some other cars that were certified that same year. And so the cars in that one category are driven by the dirtiest car. what that actually means is that there may be a clean car in that category that has emission control components that are operating properly. However, it is not caught because the

MS. MORROW: Well, what it is is that they're based

CHAIR WEISSER: And that makes sense because?

Well, because it was how the software MS. MORROW: was designed. I mean - I don't know the specifics of how those emission categories came into place. That's back history.

CHAIR WEISSER: Okay. Well, that to me raises a bunch of questions, but not necessarily germane to your report.

> MS. MORROW: Okay.

emission standard is set at a higher level.

CHAIR WEISSER: But maybe. I mean - why - I'll just toss out the fundamental question.

> MS. MORROW: Okay.

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CHAIR WEISSER: Why don't we have cut points designed and developed for each engine type and model year engine type?

You performed tests on all of these things to see their deterioration rates and it would seem to me you would be able to capture more emissions by tightening up, not just the very dirtiest, but also ensuring repair and good maintenance on the better cars too.

MS. MORROW: Well, if we had cut points for every single car out there, every make and model, it would be a very large number of cut points. There are many cars in the smog check program. I don't know if the VID has the capability to handle in the analyzer. I can't answer that question.

CHAIR WEISSER: Okay. Well, I'd like an -

MALE COMMITTEE MEMBER: Could I interject?

CHAIR WEISSER: Give me a shot. You bet you.

MALE COMMITTEE MEMBER: You might just mention the proposed number if expanded, from 25 to what? Put this into context. But it's 25 to 10,000 different -

CHAIR WEISSER: Really?

MALE COMMITTEE MEMBER: - vehicles by your extreme.

MS. MORROW: Yeah.

MALE COMMITTEE MEMBER: But that's not what's proposed is by 25 to 40 or -

MS. MORROW: Yeah, and I'd have to look. I don't really know off the top of my head. Let me see.

CHAIR WEISSER: Well, let me just keep babbling while you're checking. I just can't imagine that there are hundreds of engine models that are produced every year. I mean - there are. I see knowledgeable heads in the audience saying in fact that there are hundreds and hundreds of engine models produced every year. I thought that there - you know - each company might have - you know - half a dozen or a dozen models.

MS. MORROW: Well, when you think about it - I mean

MS. MORROW: Well, when you think about it - I mean - each model has many different options and levels - you know - a four cylinder, a six cylinder engine -

CHAIR WEISSER: That's two.

MS. MORROW: - per model.

CHAIR WEISSER: Now, they're using the same engine in four different cars. I mean -

MS. MORROW: Yeah, but when you spread that over - also, how many cars does this - let's see. We have '76 to - you know - whatever. Let's just say to 2005. So let's just say there's 30 years of - you know - car model options.

CHAIR WEISSER: Right. No, I can see there could be thousands.

MALE COMMITTEE MEMBER: (inaudible)

CHAIR WEISSER: I told you I'd reveal my ignorance.

MS. MORROW: Yeah.

CHAIR WEISSER: Next? Thank you, Sylvia.

MS. MORROW: Okay. And as far as finding out how many expanded to, I don't have that data in front of me and I will find that out for you.

MALE COMMITTEE MEMBER: But that's the relevant number here, correct?

MS. MORROW: Yeah.

CHAIR WEISSER: So what we basically are hearing you recommend, I want to make sure I understand this, is a very relatively simple solution. The way to get more emission repairs made is fail more cars.

MS. MORROW: Exactly.

CHAIR WEISSER: Okay. Now, the cars that you would end up failing are marginal fails. Let me call them that. They're not cars that you'd fail under the 10.4 percent cut point. They're the next one or two percent of the cars in terms of their emission characteristics as captured by the test. They're marginal fails. They're not gross fails. They're marginal fails, right? Am I right there?

MS. MORROW: Some may be marginal fails.

CHAIR WEISSER: Well, by definition, I would think they're all marginal fails because you're already capturing the 10.4 worst fails.

MS. MORROW: Yeah.

CHAIR WEISSER: And you're just getting that increment between 10.4 and 11.9 versus 12.8 in terms of the vehicle fleet.

MS. MORROW: Well - I mean - that's true on that end. However, we anticipate that this might provide more durable repairs because the cars would have to be repaired to a lower emission standard. You may not be able to just pass the test by just slapping on a catalytic converter. So this is something that we are looking at for providing more durable repairs, and more complete repairs to the emission control components of the vehicles.

CHAIR WEISSER: Excellent point. I hadn't thought of that. What I had been thinking of is that the reason your cost effectiveness goes way down, well it gets -

MS. MORROW: Yeah.

CHAIR WEISSER: - you get a higher number, becomes relatively less cost effective. Is it because repairs on marginal failures are harder to diagnose and then harder to repair?

MS. MORROW: No - I mean - the cost effectiveness goes down because, you're right, that there are some marginal failures that the cost of repair will be more significant than what the emission reductions are. But it's just you're repairing more cars. There's more repair costs associated than if you were just to repair it down further.

CHAIR WEISSER: Okay. I don't understand what you just said.

MS. MORROW: Basically what it is is that - you know - we have a current - on BAR's executive summary they provide data on what the average repair cost is.

CHAIR WEISSER: Right.

MS. MORROW: What the average repair cost is for different types of stations. And so what we thought was that well, the average repair cost doesn't actually hold value anymore because we're saying you're going to be providing more repairs on the vehicles by lowering the cut points. And so we selected - we noticed that the gold shield. And we thought, well, the Gold Shield is supposed to be providing more durable repairs, and so we used that. And for the new failures that were found via the cut points for everyone across the board, that whole increment, because they wouldn't have had to have had a repair in the first place -

CHAIR WEISSER: Uh - huh.

MS. MORROW: - and now they would've had a more durable repair. While with the post repair cut points, there's just an incremental increase in the repair cost. And so that's why that cost effectiveness is lower.

CHAIR WEISSER: Okay. You talk about software update needed.

MS. MORROW: Yes.

CHAIR WEISSER: Can you give me an idea of what we're talking about there in terms of cost?

MS. MORROW: You know - that's a BAR topic - you know - in the past. I mean - Dennis might know and Roger might know a little bit better about what a software update costs.

Usually, what they do is they do package many improvements in it.

MALE COMMITTEE MEMBER: Costs about \$1200.

MS. MORROW: Yeah, so it's - yeah, \$1200. Around

MALE COMMITTEE MEMBER: There's no free lunch.

CHAIR WEISSER: There's no free lunch, so the stations pay for this. This isn't something the state develops. It's something that the people who own or lease the manufacturer leased the equipment sell to their audience, their users.

MS. MORROW: Yeah, because the manufacturer would have to develop the software and then will provide it to their -

CHAIR WEISSER: Mr. Keller, do we need to report an industrial accident? Thanks, Sylvia.

MS. MORROW: Okay.

CHAIR WEISSER: I'll start letting Committee members ask questions and I'll start them. Any questions on this side?

No? Dennis. Whoops. Got to have it up, Robert.

MALE COMMITTEE MEMBER: Robert had it.

CHAIR WEISSER: Okay. We'll start with Roger.

MEMBER NICKEY: I didn't really have a question as much as I had a comment on the software update, was that at least in

my frame of reference, I don't pay for software updates because

I have a -

CHAIR WEISSER: Leased type -

MEMBER NICKEY: I have a lease type situation and you pay a maintenance fee. So when the updates come I don't get charged for them.

CHAIR WEISSER: But some people would.

MEMBER NICKEY: If you didn't - I believe, and I - now,
I have ESP. I don't know what the situation is with other
companies, but at least mine, I don't pay for software updates.

CHAIR WEISSER: Thank you. Robert?

MEMBER PEARMAN: You were referring to the differences between the need for legislative change between the possibilities and the lower initial cut points. Is that because you feel there's a reg that says you can change some of the 30 percent of the criteria?

MS. MORROW: Yeah, well, BAR already had the authority to set cut points. There's a question of whether they have the authority to set a second set of cut points for post repair.

MEMBER PEARMAN: But, and if I recall, I'm reading some footnotes from the Sierra study, but they can only adjust them by no more than 30 percent without legislative -

MS. MORROW: Yeah.

MEMBER PEARMAN: That's what you're referring to?

MS. MORROW: Yeah, and I believe - you know - the
current cut points, I'd have to check, that are in regulation,
we'd have to find out whether that these are - because these
were just changed to about 30 percent. So I'm not sure if BAR
has made some recent changes to the ones that are in regulation,
but we'd anticipate that would require regulation to change
these.

MEMBER PEARMAN: So you think it can increase 30 percent or decrease 30 percent and done so again three years later without legislative change? Is that what you're saying or is just what -

MS. MORROW: Well, BAR has the authority to set cut point. I mean - there are requirements for cut points. You know - number one, that they can't cause an error of commission rate more than five percent.

MEMBER PEARMAN: Uh - huh.

MS. MORROW: And I believe, and I'd have to check my facts on this, that they can't be more stringent than the car was designed to meet. So - I mean - there are some requirements.

MEMBER PEARMAN: Now, there are 25 emission standard categories now and you propose to increase them, though you haven't been able to give us the number, correct?

MS. MORROW: Right. I don't have it at hand.

MEMBER PEARMAN: So you feel the regulation now allows BAR to create more emission standard categories.

MS. MORROW: Yes.

MEMBER PEARMAN: Okay. Have they done that in the past where they've increased them pursuant to what's in the table and the regulations in the past?

MS. MORROW: I'd have to check. I don't know off the top of my head.

MEMBER PEARMAN: I saw the Sierra report of July $14^{\rm th}$ development of emissions impacts of more stringent ASM cut points. Is that the Sierra research you referred to here?

MS. MORROW: Yes.

MEMBER PEARMAN: They have a chart in there which referred to cost effectiveness of more stringent ASM cut points, dollars per ROG NOX reduced. And under their scenarios, they have a range in near term and mid term from a low \$6300 to \$8200 per ton. And your chart for at least the lower initial cut points is much larger, \$11,000 per ton in terms of cost effectiveness. So do you know if I'm comparing apples and oranges or can you explain the difference between the figures?

MS. MORROW: Yes, I can explain the difference.

Originally, they had specified that the repair cost, which should be the average BAR repair cost, in their analysis. And after the fact, ARB staff, we thought about it some more and we thought well, if these are actually more stringent repair cut

points requiring more durable repairs, it can't be the same average repair cost.

MEMBER PEARMAN: So they'd be more expensive then.

MS. MORROW: Right.

MEMBER PEARMAN: Okay.

CHAIR WEISSER: And how did you figure out how much more expensive they'd be?

MS. MORROW: That's when we used the data from the Gold Shield stations average repair cost and thought that we needed to use some kind of actual data, and we thought that that was the best to reflect what it could be.

MEMBER PEARMAN: Thank you.

CHAIR WEISSER: Are you through, Mr. Pearman?

Following up on the question that Robert asked in the pros and cons of the tougher cut points after failure, it would seem to me one enormous con would be - I mean - the potential for consumers to feel ripped off or be ripped off by stations - you know - using that new bifurcated system, lower initial past, higher post repair. And that would cause, I think, a significant political reaction.

MS. MORROW: Yes.

CHAIR WEISSER: Is that accurate? And if so -

MS. MORROW: Well, we did not discuss that. I think we generalized that in that it complicates the smog check

program, and any time a complication arises in the smog check program there always is a little discussion.

CHAIR WEISSER: I remember when past this issue has come up we've had members of the public - you know - kind of saying don't put me in that - or I should say, members of the industry saying don't put me in that situation. It will be very difficult for me to work with my customers in a way that will leave them smiling.

MS. MORROW: Yeah, and that's why we thought that lowering the initial cut points was a better option because of the fact that you don't have consumers having two sets of standards. And then also because we thought that the industry would gain the system, would try to - people would no longer - they wouldn't have a real smog check inspection until they passed.

CHAIR WEISSER: Thank you. Dennis?

MEMBER DECOTA: Dennis DeCota. Sylvia, listening to Dr. Cahill this morning, looking at the cut point issue and health related issues, wouldn't it behoove us to look at the H-C cut points in the light of his report to see specifically since he basically made the statement that we were meeting attainment in the other areas. Couldn't we save -

MS. MORROW: Not meeting attainment.

MEMBER DECOTA: Not meeting attainment. Smog producing elements were not as great in other areas. I think that's fair

to say. Wouldn't it behoove us to really kind of zero in on H-C cut points in vehicles between '76 and '95 and - you know - start it in that method using a - because I'll tell you what's happening. All right? Is of course, lose compression. When they lose compression they don't work as efficiently and they pollute. And it's because of mileage, wear and tear, age, and lack of changing oil. I mean - it's a given fact that you can pass smog by simply changing the oil, right?

MS. MORROW: I never knew that.

MEMBER DECOTA: Really? Well, it's true.

CHAIR WEISSER: Really?

MEMBER DECOTA: Yes. Roger, you agree?

MEMBER NICKEY: (inaudible)

MEMBER DECOTA: Okay. Well, it's nothing new. The point that I'm trying to make is that it becomes polluted.

Okay? And with the less compression and everything else, why don't we take and go to the worst offenders immediately? Why are we taking this broad brush approach?

MS. MORROW: Well - I mean - these cut points do reduce H-C emissions also. It isn't just NOX. And the way the analysis work is we had to - you know - to weed things out we looked at were other cars failing more in other areas of the country in comparison to California cars? And so we took a broad brush approach that way. And some of them are older cars, some of them are newer cars. But - I mean - that was the

procedure we thought that would provide a lot of emission benefits.

MEMBER DECOTA: But on evap you're telling us we're going to gain 14 tons per day.

MS. MORROW: Yes.

MEMBER DECOTA: And you sure didn't use a broad brush approach in developing that.

MS. MORROW: Well, we used a - I guess I'm not exactly understanding your question, Dennis.

MEMBER DECOTA: Well, what I'm saying is - you know - you're saying one thing to justify - you know the research. I mean - here's a report by, I think, someone that you probably have worked with in the past.

MS. MORROW: Yeah.

MEMBER DECOTA: Now heart and lungs invested and worked with as far as finding out, and he's helping us zero in -

MS. MORROW: Yeah.

MEMBER DECOTA: - on one particular issue that can be reflected in this to improve the program. But yet - you know - here we are I think throwing a lot of energy and effort into areas that we're not going to get the bang that we need.

MS. MORROW: Well - I mean - there's a lot of areas that - you know - could be gone after to improve the smog check program. Many of them then that you had recommended in your report and what we had recommended in our report. But - you

know - they're options and many times - you know - the agencies don't have the authority. But - you know - as far as, like I said, they looked at all the vehicle fleet, fleet wide. That includes older and newer cars. And we said what cars can we put more stringent cut points on that would provide us some emission benefits? And that's what the contractor did.

MEMBER DECOTA: I don't know.

CHAIR WEISSER: Okay.

MEMBER DECOTA: Yeah.

CHAIR WEISSER: Jeffrey?

MEMBER WILLIAMS: I read the Sierra report fairly

closely. Being a statistical analysis, it interested me.

MS. MORROW: Yeah.

MEMBER WILLIAMS: I approve of this idea of comparing to the experience in other states, but I'm left very concerned that the situation is identical in other states and that there may not have been a proper control done for that.

And so to single out particular vehicles as having a different history, say in Wisconsin, and adjusting our own cut points from that -

MS. MORROW: Yeah.

MEMBER WILLIAMS: - seems to me a bit of a stretch.

To be more specific, there wasn't an analysis that said that the cars, say a 1987 Golf, I'll go to that example -

MS. MORROW: Yeah.

1 MEMBER WILLIAMS: - have the same mileage in 2 Wisconsin as in California. And that might be affecting failure 3 rates. It's just the simple fact that I don't think that cars 4 last very long in Wisconsin. 5 MS. MORROW: Yeah. 6 CHAIR WEISSER: Little bit of a salt problem. 7 There's the salt problem. MEMBER WILLIAMS: 8 MS. MORROW: Yeah. 9 MEMBER WILLIAMS: And those that do last seem to me 10 to be of a different character than in California, or 11 potentially. 12 MS. MORROW: Yeah. 13 MEMBER WILLIAMS: And I don't know how to control 14 for that. MS. MORROW: 15 Well -16 MEMBER WILLIAMS: And it seems to me we have to 17 control for that somehow. 18 MS. MORROW: Yeah. We also had - you know - for 19 most of those cars - I mean - there was some statistical issues, 20 but we also had passing values for cars that passed the smog 21 check for all of those cars. 22 MEMBER WILLIAMS: Yeah. 23 MS. MORROW: And so that was part of the comparison

too, is that looking at the other states was like an

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identification process.

1 MEMBER WILLIAMS: Yeah, it's just a technical 2 question. Does Arizona have fast pass? 3 MS. MORROW: I don't know. I know, and then -4 MEMBER WILLIAMS: So that's already going to skew 5 things. 6 MS. MORROW: Yeah. 7 MEMBER WILLIAMS: But let me go another direction, 8 and I've been thinking about this a lot every since you gave me 9 that report. It seems to me that there's useful information in 10 a particular vehicle's history. 11 MS. MORROW: Yeah. 12 MEMBER WILLIAMS: And I've been focusing on that. 13 Remember my paired Honda's? 14 MS. MORROW: Yeah. 15 MEMBER WILLIAMS: So I've been thinking that way and 16 I'm proposing to look at some of the data sets that I've been 17 developing on this question. 18 MS. MORROW: Yeah. 19 MEMBER WILLIAMS: I haven't looked at the data. 20 let us come up with some hypotheses ahead of time. That's a 21 better research technique, supposedly. It seems to me that cars 22 in this marginal pass category -23 MS. MORROW: Yeah. 24 MEMBER WILLIAMS: - as Vic has called it, let's

imagine a test that's done in 2002 and it marginally passed

then. What should be seen in a test in 2004? That pairing seems to me to contain a lot of information relevant for what should be happening. I can see two extremes. One is that the marginal pass in two years later passed easily, which suggests that there was some false positive or maybe something else that we weren't taking care of.

MS. MORROW: Repairs.

MEMBER WILLIAMS: And we certainly wouldn't have wanted to repair it. It wasn't repaired then. Maybe something else happened, but on average those cars, if we see a pattern of near fails followed by clear passes -

MS. MORROW: Yeah.

MEMBER WILLIAMS: - we shouldn't have intervened.

On the other hand, if we see a near fail or just passed
CHAIR WEISSER: Or a catastrophic.

MEMBER WILLIAMS: - and a catastrophic failure, it suggests strongly we should've intervened because sometime in that two years there was a catastrophic failure.

MS. MORROW: Yeah.

MEMBER WILLIAMS: And we could anticipate that. So I would say, looking at this pairing history is going to tell us which of this is happening, and if it's the latter one, those cut points should be lower.

1 MS. MORROW: Well, Jeffrey, I think that - you know 2 BAR and ARB would definitely entertain any - you know -3 thoughts you have and suggestions and -4 CHAIR WEISSER: Can you do that analysis by next 5 weekend? 6 MS. MORROW: No. 7 I hope to do it by next November's MEMBER WILLIAMS: 8 meeting, but I'm asking now is that a reasonable way -9 CHAIR WEISSER: I think the implications of that are dramatic. 10 11 MS. MORROW: Yeah. 12 MEMBER WILLIAMS: Are we sure that those are the 13 reasonable ways? 14 CHAIR WEISSER: That I can't say. Yeah. 15 MS. MORROW: Well -16 Just to think about it and I MEMBER WILLIAMS: 17 prefer we think about it now before we actually see the data. 18 MS. MORROW: Yeah, and that's - you know - that's 19 why we have stated - you know - we think that lower initial cut 20 points will provide more durable repairs and again -21 CHAIR WEISSER: Can you tell us why you think that? 22 MS. MORROW: Well, we just think that by slapping on 23 a cat, it's just not going to - because it's not going to fix 24 the problems. There's also - I mean - you know - as we're just

getting together the test plan to look at - you know - why this

1 40 percent failure rate is. Well - you know - there are many 2 reasons and one is - you know - not complete repairs. A second 3 could be that a car is old and it is just deteriorating and it's 4 just one thing after another. Another thing is that somebody is 5 shopping for a smog. They just go and they go until they pass. 6 And - you know -7 CHAIR WEISSER: I still don't understand why a higher 8 cut point will result in more durable repairs. 9 MS. MORROW: Because then we think that a car would 10 have to be actually repaired more durable. We just think that 11 you have the potential to have more repairs to meet(Tape change) 12 - cut point. That instead of just a cat, it now needs a cat and 13 an oxygen sensor or it needs a - there's a plugged - you know -14 MALE COMMITTEE MEMBER: (inaudible) 15 MS. MORROW: - injector or something that's going on 16 that is now needed to meet that lower emission standard. 17 MALE COMMITTEE MEMBER: Jeffrey, I take your examples 18 to heart and that's saying that in this pairing or the history -19 MS. MORROW: Yeah. 20 MALE COMMITTEE MEMBER: - we ought to see this searching until there's a pass -21 22 MS. MORROW: Yeah.

MALE COMMITTEE MEMBER: - and then two years later, a

MS. MORROW: Yeah.

catastrophic failure.

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CHAIR WEISSER: That's what I think you're after. (overlapping)

MEMBER WILLIAMS: That's what you're (unclear). I think we're - yeah. And so we're all saying let's look at these histories.

MS. MORROW: Yeah.

CHAIR WEISSER: I think it's pretty darn important,

Jeffrey. I mean - I think that strikes at the fundamental value of this approach toward garnering substantial emission reductions. I'm not convinced, at least not yet, that throwing additional public money, consumer money - not tax money so much, but consumer money - at the marginal failures is the best use of societal dollars. I still, and this is not going to throw people, certain people in the audience. I still think we need to be focusing on the identification of on-road gross emitters and either get those sorts fixed or off the road. That in terms of use of societal dollars, that's where the benefits lie. And I'm not sure that this is the way to go. I don't know, but I'm not convinced. Let's move down to Bruce and then back to Jude. Bruce?

MEMBER HOTCHKISS: Yeah. My question/comment has to do with the, I guess software update. And it seems, I know that this has been brought up before on the Committee, but it seems to be that the EIS, the emission equipment, was designed to allow downloadable updates.

MS. MORROW:

Yes. Yes.

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MS. MORROW: It's a process.

all along, that so if cut points were changed it could be done overnight. MS. MORROW: Yes.

And I think that was the intention

MEMBER HOTCHKISS:

MEMBER HOTCHKISS: I quess I fail to see why it's going to be so expensive. I mean - I do updates on my computer at home all the time and it doesn't cost me a thousand dollars a hit.

MS. MORROW: I just don't know. I don't think the software has the capability to go to that level of detail. has currently - there's 25 emission standard categories, each with a cut point. So when you download it, it goes down to in those 25 boxes, or - you know - and there, for this approach, there might need to be some more boxes for it to download into. Are you understanding what I'm saying?

MEMBER HOTCHKISS: So you're saying that you need a hardware update then?

No, no. It's a software. MS. MORROW: It's a software of - you know - what the - you know - right now a car comes in, it says okay. Look at this. This is where you go. And it would have to be a modification to that.

MEMBER HOTCHKISS: But if you're doing a software modification - I mean - I'm on dial-up. It takes me forever to download anything, but I can still update tons of stuff on my computer and it doesn't cost me \$1,000 a hit. So I'm just kind of - you know - I'm trying to understand why it's going to be so expensive to do the software update when millions of people update their software every day for nothing.

MS. MORROW: Well, the software also has to be written. I mean - that's one of the things. That's where the manufacturers get their -

CHAIR WEISSER: Well, I think Bruce, you hit it right on the head. There's a real difference in cost when you're dealing with millions of people versus a couple of a few thousand and you're able to spread development costs around the million people, versus five thousand.

MEMBER HOTCHKISS: And that's true, but I don't know

- I mean - if they have actually done software updates,

downloadable or - because it seems to me every time they do an

update - (overlapping)

CHAIR WEISSER: (inaudible)

MS. MORROW: I'm not sure about that.

MEMBER HOTCHKISS: - somebody has to go out, do some installation and it seems to me that that would be a large part of the expense. I mean - if the whole idea that this equipment was to make things easy to do the downloads quickly - you know -

overnight or whatever, that we should be utilizing the equipment and the capabilities of the equipment.

CHAIR WEISSER: Who could argue with that? Jeffrey, did you have a follow-up point? Then we're going to go to Jude and then Robert, and then -

MEMBER LAMARE: I just have a - just follow-up.

CHAIR WEISSER: Oh, shoot.

MEMBER WILLIAMS: The last time we had an update on the cut points it was for NOX and they did it overnight, but we didn't change thousands of vehicles. It just changed the NOX cut points. That was all.

CHAIR WEISSER: Uh - huh. Well - I mean - maybe I'm missing something here, but there are different ways to skin this cat and I'm not an expert. You guys know a lot more about it than I do. I imagine it'll be a lot cheaper just to say, okay. Cut points are from here on 10 percent or 50 percent higher. Then you just overlay that on everything. I mean - right?

MS. MORROW: But you can't go across the board on something like that because there still is that one high emitter that the emission control components are operating properly that drove that high cut point in the first place. So if you were to do an across the board reduction on it, its mission control components would be in good operating condition, yet it fails the smog check inspection.

CHAIR WEISSER: Well, I guess I wouldn't want to break the bank on saving - you know - the AMC Pacer or whatever it is that's not failing. Okay. Thank you. Jude? I mean - yeah, Jude.

MEMBER LAMARE: (inaudible)

CHAIR WEISSER: yes, I believe so.

MEMBER LAMARE: Thank you, Mr. Chairman. I'm trying to keep an open mind on this topic. I think there is promise in fine tuning cut points by creating more categories and the categories more closely represent the real emission failures for that group. So intuitively, the idea makes sense to me that having 25 categories is far too many and you're going to have a lot of cars in those categories that really aren't being tested to what their real potential is.

CHAIR WEISSER: Did you say far too many?

MEMBER LAMARE: Far too many vehicles per category.

CHAIR WEISSER: Ah. Okay.

MEMBER LAMARE: And therefore, your criteria for many of those cars are simply not stringent enough and many, many cars are passing that actually should fail. So I intuitively agree with the idea and I understand that it's an incremental change to the system. It's not a major fix. It's not something that's going to get at a lot of the issues that we're working on, which ARB and the Bureau are holding in suspension for the next phase of study.

Presumably, we'll be more knowledgeable about that study having gone through this. But I understand that the agencies have to work within existing statutory limits and a lot of what's going on in this report is an attempt to work within those statutory limits and justify some changes to the categorization of vehicles so that there can be more categories with fewer vehicles in each category and therefore more finer cut points, which is where we want to go.

Nevertheless, it seems as though we need some thought as to what can be done effectively with statutory changes and what would be the necessary statutory changes. And I haven't heard the agencies talk about that. Clearly, if we're just getting this little marginal change based on - it's really quite a small change. A few tons, cost effective. Okay. But I think some of what you're hearing from IMRC is this is really such a small change and if you're being hamstrung by statutory requirements why not bring those forward and talk about that?

Clearly one of the conclusions I reach is a conclusion we already reached in this Committee. Please get rid of fast pass for at least a good sample of the vehicles that we're trying to understand out there, that it's ridiculous to compare our vehicles to vehicles in other states where we have the capacity for much more thorough data analysis data collection in our own system. And it doesn't require that every car give up fast

pass, but that it be a random sample and be large enough to feed you the information that you need.

We need a larger sample to assess the cut points more carefully and to require - I think also, we've talked about well, aren't these technicians required to put in their repair information? Well, yes and no. They don't always do it Jeffrey says. There's a place to put it into the VIN, but from what I'm hearing from Jeffrey, they don't always do that. Well, can't we, the state, have some method of actually gathering the data you need to assess the program through the program.

I agree with Jeffrey that the comparison with other states is shaky and I agree with Dennis that there's a very small increment being gained here. But I appreciate the effort to break those vehicle categories into more categories and I think that it's a sound effort. Thank you.

CHAIR WEISSER: I would add you spoke very well, Jude. Our job here is try to help you and BAR shape this program in such a way that we get the most cost effective emissions that we can while structuring the program in a way that's as consumer friendly as you can and that's fair to different industry players. The nature of the conversation I think you're hearing from us should not in any way, sense, or form be seen as being critical of what you're doing. It's really to try to figure out how much we're getting from this idea versus other ideas and whether it's worth it. I'm going to ask Robert.

1 MEMBER PEARMAN: That would be my question. CHAIR WEISSER: Okay. I think we had someone on the 2 3 conference line. 4 MR. CARLISLE: He'll probably be calling in any 5 minute. 6 CHAIR WEISSER: Okay. 7 MS. MORROW: Okay. 8 MEMBER LAMARE: Mr. Chairman? 9 CHAIR WEISSER: Yes. 10 MR. LAWSON: Doug Lawson. (phonetic) 11 CHAIR WEISSER: Okay. We have Doug Lawson and we're 12 going to start opening it up to public comments with that. 13 Doug? 14 MR. LAWSON: Yes. 15 CHAIR WEISSER: Good afternoon. 16 MS. LAWSON: Hello. 17 CHAIR WEISSER: The Committee had the benefit of seeing 18 your initial e-mail and you might want to share it with the rest 19 of the audience here. And then whatever else you want to share 20 with us, that would be great. 21 Yes, Vic, thank you. I can't hear you MR. LAWSON: 22 very well, but I could hear you better over the Internet and 23 there's about a ten second delay between the two. But I'll go

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ahead and speak anyway.

We've looked very thoroughly at what happens to failure rates when you tighten cut points and what net emission benefits you get. And as it turns out, because there's so much skew-ness in emissions, whether you just look at one of the pollutants or all three, thumb them together, that as you tighten cut points you fail many, many more cars but you get very little emission benefit. That's why the cost estimate in terms of dollars per ton really ramped up when the one person from ARB was showing those data from Sierra Research.

Our data have clearly shown that when you fail these marginal emitters you don't get much emission benefit from them because there's not much emission benefit to be derived.

Moreover, when you look at the sum of the three pollutants that you're trying to control you end up at times having net emission increases with the marginal emitters because you're not getting much out of them. And sometimes when you tune a car to run rich and to make it pass for NOX, for example, then hydrocarbon and C-O go up. So it means that in many cases for these marginal emitters you end up getting a net increase in emissions after repairs. We've clearly shown that and published that. And when I technical consultant for the IM Committee, we did show that very clearly to the Committee. Dennis DeCota was a fellow member of that.

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CHAIR WEISSER: Thank you, Doug, Doug, we're having a little hard time hearing you too, so if you could speak up that would help the public.

MR. LAWSON: Okay. Will do.

CHAIR WEISSER: Okay. Is there anything else that you want to add?

MR. LAWSON: I would just mention too that we just completed a major study in the L.A. basin a few months ago looking at PM emissions from gasoline and diesel vehicles and I had to leave during the part of the presentation with Tom Cahill today, but we presented that at an ARB web cast. And there's some pretty profound implications for smog check regarding the findings of that study and I don't know if the Committee is interested, but we could present some of that remotely to the Committee in a short presentation at a future date if the Committee is so interested. And again, it has to do with PM emissions that come from gasoline-powered vehicles.

CHAIR WEISSER: I can say on behalf of the Committee, Doug, we will be in contact with you to arrange such a remote presentation.

MR. LAWSON: Thank you.

CHAIR WEISSER: And thank you. We'll go to members of the audience that are here and we'll start with Mr. Peters.

MR. PETERS: Thank you, Mr. Chairman and Committee.

My name is Charlie Peters, Clean Air Performance Professionals

representing a coalition of motorists. A lot of very interesting information provided this morning or this afternoon, both, and just to kind of see if I can get my hands around this at all, started off by talking about - one of the things we're talking about is the fuel evap testing equipment. And I think my opinions on that were pretty clearly stated in the April 26th, 2005 meeting of this Committee. Go to page 170 on your website makes my opinion about that fairly clear.

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The issue that there's a possibility of two and a half billion dollars in shorted funds to the state of California based specifically on that issue somehow or another just doesn't sound quite like it really works and that I believe the EPA's standards are performance based. At a rand (phonetic) meeting that I went to, EPA made it quite clear that we could go to a completely remote sensing program as long as the performance of the program could be justified that it was going to meet the standards. So saying that that particular piece of equipment could stand in the way of two and a half billion dollars from the fed when the state created the sip, the state can change the sip, it's performance based, I have very strong question in my mind that there is a legal ramification there that absolutely makes that so. When you have issues like the cost limit and the Clean Air Act that was made quite clear by the federal EPA that that had to be followed period, and that was not negotiable in any way, shape, or form, and we totally ignore that, to some we

haven't already lost our two and a half billion dollars. That just doesn't make sense.

The issue of the cost, we're talking about - I don't know what, 75 million dollars cost? And how much this equipment costs is going to change the cost of a smog check a specific amount. If you're going to contract to do something and do something based upon a contract that makes a lot of sense, but we do have some competitive marketplace left here. And how much somebody spends for something and what they're able to get in the marketplace doesn't necessarily relate, so that whole thing just doesn't make a lot of sense to me.

As I stated in my previous testimony here that's documented on your website, actually taking a look at this and seeing what we could do with real cars and finding out what kind of changes we could make without equipment I think would be very important to do. We're talking about a 14 ton per day emissions reduction. First of all, we're saying that we're getting 500 tons a day currently. I think that's 1000 when you take into account the (unclear) affects. I think improved management could double that, so getting the performance by addressing additional issues when we're talking about 14 tons a day, that's miniscule. That's a grain of sand on the beach that we have opportunity to get.

I have additional issues. I could talk on this issue for some time. Also, the testimony here with Mark Carlock

(phonetic) asking for the data as to whether or not what's broken is being fixed. It seems as though the Committee's totally ignored that from the start and I still will petition the Committee to take a look at that Air Resources Board data.

CHAIR WEISSER: Thank you, Mr. Peters. Bud?

MR. RICE: Thank you. Bud Rice with Quality Tune-up Shops. The first comment I wanted to make was about the evap program. My initial question is who pays if something gets broken? I mean - that's my initial question. I mean - in that, it's going to be somewhat of an invasive testing procedure, pinching things, disconnecting things, that kind of action. And if the stuff is old, if it's brittle, things are going to break. Who buys? And the customer is going to be wondering who buys. We're going to be wondering who buys because the car came in okay and now we've got broken T's and all that kind of stuff. So that's my first question.

The second one is in terms of cost that's manageable, I certainly appreciate your comments, Victor. I'm going to tell you from industry's perspective, and just from the guys I know and my own guys, they've about had it to be honest with you.

And now to have another piece of equipment that you have to buy, another service agreement that you're going to have to have, for some station that test two cars a day, five cars a week, at some point in time they're going to start saying no. No. And so

that's something you have to take into consideration too because they're going to start saying no. Okay.

The second part was on the marginal fails. If a car fails a bunch, that one's easier to find. It really is. If this thing's failing by a ton it is easier to find that problem.

When it fails a little, hang on because that one is the tough one. And usually it's not because this one component is failing so fix that and now you get the little. It could be multiple things that are failing a little. So which ones are those?

And in terms of there may not be any trouble codes, there may not be any diagnostic things that are enough to get you that little savings. So what do you do? But you're back in a wedge again. Your customer's in a wedge and for what? For maybe a little bit of value in terms of saving the air.

One thing I forgot to tell. Yeah, I'm going as fast as I can. As I look at the Committee and forgive me for stepping out a little bit, I was going to pick on Robert and I don't know if you remember the old days of the TV's that had the tubes in them. I remember those. Bruce is nodding his head yeah.

CHAIR WEISSER: No. Not me.

MR. RICE: No, you're saying no. Sorry.

CHAIR WEISSER: Never heard of it.

MR. RICE: All right. Well, tubes. Okay. Well, here comes the color TV repairman because your color TV's not working and he grabs all of his tubes out there. And he starts doing

his checks and he starts checking stuff, and then pretty soon your color TV starts working again. Okay? And it might have been this tube and this tube and off he goes. Well, two weeks later another tube goes down. Okay? So now he's back and he's putting in another tube. And you might say to him, hey listen. How about I don't see you for a few weeks? So can you give this thing a good check-up and if you see any other tubes in there you don't like, fix those tubes? Okay?

So I guess the point I'm trying to make is when you're looking at durable repairs, it's unlikely when the repairman came back to put in another tube it was the same tube.

CHAIR WEISSER: Yeah.

MR. RICE: Okay? It's likely it's another tube. So at the point where you've got a durable repair question, the question is is it going to be the same repair or is it going to be something different? Okay? Thank you.

CHAIR WEISSER: Thank you. I think that is an excellent analogy and the question there, the point that you made, Bud, associated with the difficulty in diagnosing close fails versus more blatant failures is that question there is kind of posing it to Sylvia. And I think you may be sacrificing some bang for the buck just in terms of the diagnostics associated. We're going to go to the gentleman in the back. John. Sorry. I'm terrible. I can't remember my kids' names, John. Don't expect me to remember everyone's.

MR. CONWAY: Thank you. John Conway (phonetic),

Menlo Park Chevron, member of Cassera (phonetic) Board. I just

want to take off from what Bud Rice said. I think enough is

enough for the independent shop owner in today's marketplace.

Another investment of equipment, I'm still going through sticker

shock with my initial investment in October of 2003 with the

current smog check program. And then to have to pay for more

software updates and maintenance contracts, I think enough is

enough. I'm still seeing a drop off in smog checks every month

and I think there's got to be a little give and take here for

the shop owners in the state of California and we need some

financial relief here. This really doesn't work for me and I

think it's really inappropriate timing right now to put the shop

owners in the state through this right now.

Also, I think we really have to consider the consumer in the state of California right now. With high gasoline prices this summer of \$3 a gallon, well, who knows what next year in 2006 the price of gas is going to be. I think they're being stretched by the PG&E bills they're going to incur this winter and you really have to consider what he consumers through if this does go through. They are going to help the burden of the increasing cost of smog check if we have to actually purchase this equipment. And I think the chairman of this Committee had the perfect solution to this problem earlier today.

CHAIR WEISSER: Uh - oh. What was that?

MR. CARLISLE: Government pay for it.

CHAIR WEISSER: Oh, the government. Oh, okay.

MR. RICE: Let the state of California pay.

CHAIR WEISSER: Or let the gentleman to my right pay.

||Sir.

MR. NOBRIGGA: Larry Nobrigga (phonetic), Automotive Service Councils of California. One of my concerns would be the five percent failure rate - or false -

CHAIR WEISSER: False.

MR. NOBRIGGA: - failure rate on a piece of equipment that has to be infallible. Because if it falsely fails a car and I tell my customer, okay, time to diagnose and I spend hours on this car finding a minute leak that doesn't exist, who pays? And it's got to be an infallible piece of equipment. It can't have a five percent false failure rate.

Another thing is because of the cost of this equipment which they are now estimating twenty five to \$3000, 2500 to 3000, what are the possibility of maybe shops getting together and sharing a piece of equipment, which we are not allowed to do now? That could potentially lower the cost for a shop and make it reasonable. Okay? And then barely fails, yeah. We've got a car that just doesn't quite make it for initial cut points, barely fails. The cost of identifying that and then repairing it can be quite expensive because you're looking for something

that's kind of floating out there as a thought more than a real failure. Thank you.

CHAIR WEISSER: Mr. Ward (phonetic).

MR. WARD: Good afternoon, Mr. Chair, Committee members. Randy Ward representing the California Emissions Testing Industries Association, and I want to echo what the three gentlemen before me have said. The economics of this industry have been severely impacted and -

CHAIR WEISSER: Can you speak up, Randy?

MR. WARD: The economics of this industry have been severely impacted and I think the issues that Herb raised as well regarding the consumer and sharing machines - I mean - those are the kinds of issues that we're all thinking about because no one can really afford to spend another 2500 to \$3000.

But I also think that, Mr. Chair, you raised a good issue and I think it was Dr. Williams that you took the issue from in the questioning of Sylvia on the data set for determining the fail rate on the 23 vehicles tested. I think that was far too few vehicles to come to a conclusion that this equipment is infallible. There's also a question in my mind, at least within the last twelve months, there was only one company that was producing a piece of equipment that met the BAR's obligation. Now, maybe there's more than one now, but I think there definitely needs to be a competitive bidding situation if that equipment is going to be mandated. Thank you.

CHAIR WEISSER: Thank you, Mr. Ward. Mr. Walker.

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Mr. Chair, members of the Committee, MR. WALKER: Chris Walker on behalf of the Automotive Repair Coalition and the California Service Station Automotive Repair Association. One quick comment to echo what Randy and the other three gentlemen had said. This industry is reeling right now, economically. Based upon the last cuts of vehicles from the system, we've seen a 43 percent drop in testing revenue to the test and repair side of the house alone. This is something that's untamable for people who have debt service on equipment and need to continue making payments monthly. So their ability to continue to invest in the program is something we brought to the attention of the Committee a year ago and prior to the cuts that were made voicing our concerns. Here we have it. now placed with how do we continue to improve the program? do we take it to the next level to yield more emissions reductions? And it's going to take guess what? Industry's investment, right? And now the state says it's manageable. Well, the state needs to talk to industry. The state needs to take into consideration the industry's health when they make decisions about vehicle fleets, who's being tested, who's not being tested, where cars are being directed, and such.

Couple questions for the ARB. On the OBD test we looked at the '95 to '76 fleet. '96 and newer were kind of left off on its own because OBD's got it covered. Okay? This is a question

for BAR and ARB. What errors of omission and commission does the OBD system have on evap tests? So if we're just relying upon the '96 and newer cars to be covered by OBD, how often is the OBD accurate and does ARB and BAR have a consensus agreement on the accuracy of OBD? Because I know in the past there's been some disagreement. So if we're going to rely upon the fleet of vehicles '96 and newer to just be covered by OBD we need to know whether or not that system's working and if we have agreement between the two agencies on the accuracy of that equipment.

The second thing is with the lower cut points being suggested, there is a nexus between the lower cut points and more durable repairs as was suggested by ARB that people would be perhaps doing more extensive repairs than they otherwise are doing today. Where is the nexus between that and the conversation earlier this morning about the waiver situation? And how many cars are being provided waivers? How many cars are exceeding the cost limits today? If in fact we're going to lower the boom on the cut points, why isn't that part in parcel of the discussion on the allowable limits for spending for repairs? We're currently at \$450. We have been at \$450 since '97, '98. We haven't adjusted it according to the CPI, consumer price index, as allowable under law. Why is that? I understand there's a political reason for that, but if in fact we're going to lower the boom on cut points and expect more repairs to be

done, why isn't that part of the conversation on the allowable limits? Thank you.

CHAIR WEISSER: Thank you. Mr. Keller?

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MR. KELLER: Marty Keller, Executive Director of the Automotive Repair Coalition. Mr. Chairman, I think that the issue that you raised with respect to potentially financing this equipment needs to be explored more and I would suggest that the agencies are not the people to explore that. They don't have the statutory authority and I don't know what incentive they would have to spend some of their own budgetary pool. So I would respectfully ask the Committee to take that on and this association would be more than willing to work with you to investigate. I believe, if my memory serves me right and it's possible it doesn't, but the state of Massachusetts created a lease program for their BAR-97's back in the late '90's and the state purchased the equipment and then created a lease back to the industry. And the control data, I believe also one of the counties in Utah did the same thing. So there should be precedent. There should be experience. There should be some information available to us as to what's worked in other places. This may be a wheel we don't need to reinvent but there may be something of value. So anyway, we stand prepared if this Committee's willing to take that on and be innovative, think outside the box, and not depend on the bureaucracies to figure this out, to take a look at that.

CHAIR WEISSER: Don Quixote thanks Sancho Ponca.

MR. KELLER: Si. Is that a no?

CHAIR WEISSER: Mr. Peters.

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MR. PETERS: Mr. Chairman and Committee, Charlie Peters, Clean Air Performance Professionals representing Coalition of Motorists. Thank you very much for allowing me to get up and share a little more. Again, I'll go back to the little statement that I am confused. We sat here for the last hours getting advice, getting opinions of the Air Resources I never supported removing the Air Resources Board from the policy position. Other people in this room did. I always felt that they served some very good functions, but the way the statues handle it the way I understand it today, the policy issues are the purview or the Bureau of Automotive Repair. If in fact this issue is being addressed through the Bureau of Automotive Repair, we might actually come up with some solutions. We got a Bell AB-386 that we're trying to get policy and money back to ARB. I don't think that's passed yet. think it's appropriate that this discussion is with the Bureau of Automotive Repair and that that's where the appropriate policy should be handled at this time. Thank you, Mr. Chairman.

CHAIR WEISSER: Thank you very much, Mr. Peters. You kind of preempted me that time because my next question was actually going to be to BAR to see if they have anything they'd like to add or react to Sylvia's report. I mean - is there - I

know the close working relationship the two agencies enjoy and is there yet a perspective that's emerging from BAR as to what you're going to do on this?

MR. GUNN: Good afternoon, Mr. Chairperson. Yes, it is afternoon, everybody else. Marty Gunn with the Bureau of Automotive Repair. As Sylvia stated, I don't believe the Bureau of Automotive Repair has received all the data yet. So at such time that we receive all the data and review it and discuss whatever issues, I imagine we would have more comment on it. There were certain segments of the Bureau of Automotive Repair that worked on it. It wasn't me personally. But again, I believe the Bureau of Automotive Repair is waiting on all the data in its entirety.

CHAIR WEISSER: You guys don't - while the study was going on or their analysis you haven't been in communication with them and -

MR. GUNN: Not me personally, no.

CHAIR WEISSER: But there has been. Sylvia's nodding her head rapidly up and down. There had been communications between BAR and ARB on this. Of course, when the agenda went out we thought we'd be hearing from BAR also to get their attitude, recognizing that you may agree with some of the stuff that was said. You may have questions that you're not ready to respond to for the reasons, Marty, you just stated. Or you may just know right off the bat you think this is a dumb idea or

this is a great idea. I don't know. But it would be helpful for us to hear from you with the sorts of issues that you think need to be looked at in this regard. Perhaps you can let us know at our next meeting. Thank you. Any further discussion on this?

Sylvia, you're terrific. Whatever they're paying you, it ain't enough. You gave two very good reports and you responded as best you could to our questions. The questions that we asked indicate to me a lot of - well, there's a desire I think on the part of at least some of the Committee to better understand the methodology and the analyses that you put forward and whether that methodology is supportive of the conclusions and recommendations that you came forward with.

I notice in our agenda that there were three - pardon me, make that four issues that we asked BAR and ARB to give us an update on. You've covered fuel evaporative testing. You've covered model specific. Well, sort of model specific cut points. I guess at one level, that's what we were just talking about. OBD-2, we kind of got into that and I think the questions that were raised regarding how OBD-2 performs in relationship to the evaporative system testing that was raised, I think that's something we need to find out about, because indeed, if you're trying to fix the '76 to '95 portion and yet the OBD-2 system is not working reliably for the newer fleet, it

raises a substantial question. But I've heard no discussion of what's going on with remote sensing from either BAR or ARB.

MS. MORROW: Sylvia Morrow, ARB. I think I did mention before I started both of those presentations that we are still finalizing the results of both the RSD report and the OBD-2 report. So until the results are finalized we're not really prepared to give you what the results are for them.

CHAIR WEISSER: Thank you. That's I'm sure just a combination of age and sleeplessness that has made me forget that, Sylvia. Folks, we have many agenda items left before us and a limited amount of time. Is there anything in the legislative update that we need to go over today, Rocky, or is this routine?

MR. CARLISLE: No, the legislation hasn't changed. The legislature doesn't reconvene until January $4^{\rm th}$. I just wanted to list it there in case anybody wanted more information.

CHAIR WEISSER: Okay. Is there anything that people in the audience would like to say in three minutes or less? Well start back. John. John. I said John this time. It was hesitant, but it was a John.

MR. CONWAY: Hello.

CHAIR WEISSER: I do believe that people at birth should have their names imprinted in bold (unclear) on their foreheads. (overlapping)

MR. CONWAY: Next mother (inaudible). Thank you.

John Conway, Menlo Park Chevron and Cassera Board member. I

touched on this last month and I'll be very brief today. I'm

very concerned about the drop off in smog check. I'm seeing

another tremendous drop off this month again.

CHAIR WEISSER: Does this have to do with legislation?

MR. CONWAY: The AB-578.

CHAIR WEISSER: Fine, thank you.

MR. CONWAY: Why we're waiting for the legislative process.

CHAIR WEISSER: Fine, thank you.

MR. CONWAY: I'm looking for a solution that's fair an equitable to test only and test and repair. Right now I see no consistency with the program at all. The drop off continues and I would like to see some sort of continuity and some sort of resolve here where we can get together and have a redirection of vehicles so we can get some financial relief here.

And the other thing I just want to mention is in the last couple of months I've repaired for Gold Shield and gotten negative response about being on Gold Shield program because I don't have enough cars that fail. Well, if I don't have the cars I can't fail them. So I think this needs to be looked into.

CHAIR WEISSER: Yeah. Is it a percentage-wise failure they're saying or is a numeric?

MR. CONWAY: It's a percentage-wide failure.

CHAIR WEISSER: Well, then it wouldn't matter if you don't have enough cars to fail. I mean - it's just a percentage of what cars you have, no John? What am I missing?

MR. CONWAY: No, I think it was the other way. It must have been the other way because we figured it out that I'm not getting the cars to test so I can't qualify to be a Gold Shield program.

CHAIR WEISSER: Huh. That's strange. Thank you very much.

MR. CONWAY: So I do encourage you to come to some sort of solution here for redirection of vehicles. It's for an equitable -

CHAIR WEISSER: Well, my understanding is that that legislation was substantially revised following this Committee's discussion, our last discussion on it, during the session. And I think at an upcoming meeting, Rocky, what we need to do is get in contact with the legislator's staff, the author's staff, find out where the legislation stands, what the intentions are, and you then need to make a presentation to this Committee as to how the legislation has changed so that we can determine what, if any, a future course of action should be. Thank you.

MR. CONWAY: Just to ask you, does the BAR and the ARB have the capability to redirect cars? Do they have the jurisdiction and authority to do that?

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CHAIR WEISSER: To redirect cars. You mean from test only to test and repair or change that percentage?

MR. CONWAY: Change that percentage that's fair and equitable?

CHAIR WEISSER: I think that we don't have enough time in this century to explore all the aspects of that questions because I believe they would say something along the lines of being constrained both by state law and commitments to the feds and other people would say something quite different that would indicate that they might. So it's an open question.

> MR. CONWAY: All right. Thank you.

MR. CARLISLE: It's continued, I ask it.

CHAIR WEISSER: Let's come - Mr. Rice? And then we go to - this will be on legislation, right?

MR. RICE: (inaudible) I might have missed the connection at the very end, so let me just restate for my own self here. If there was a way to somehow include in 578 a true definition of what the testing pool is, I think that might go a long way in terms of evening out what's going where and who's getting what.

CHAIR WEISSER: You might want to speak to the author about that. Mr. Peters?

MR. PETERS: Mr. Chairman, Committee, Charlie Peters, Clean Air Performance Professionals, representative of Coalitions of Motorists. AB-386. I was the only official

listed opponent of that bill stating that no one less amended, and proposing having specific language and leg counsel that requires an auditing of the program to encourage and support improved quality. And back to the same subject matter, May 17th, 2004 when you, Mr. Chairman, were not here. Mr. Corval (phonetic) was chair, acting chair, and Mr. Carlock, who no longer works for the state of California, at that time indicated he had the data as to whether or not what was broken was getting fixed. And specifically addressed an issue that just came up that the OBD-2 study was in process. So all that data is available at the Air Resources Board per the previous Chief of Modeling at he Air Resources Board. I requested that information. I got information that certainly did not address my questions. I would suggest that it's appropriate for the Committee to get the information as to whether or not what's broken is getting fixed, and specific to OBD-2, which are the questions that have just been on the table in the last couple of minutes. That information is there. It is available and if the Committee requests it you probably could get it and it might make a difference in how the program works Mr. Weisser and Committee.

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CHAIR WEISSER: Thank you, Mr. Peters. Are there any other questions or comments on legislation? If not, we're going to move into the next item, IMRC consultant task list. Rocky, carry me forward.

MR. CARLISLE: Yeah, at this time we haven't done it formally. I'd like to introduce Dr. Steve Gould (phonetic).

He's our consultant. He's hiding in the back there.

CHAIR WEISSER: Stand up, Steve. Yay.

MR. CARLISLE: And Steve has now been on board for several weeks. He's been doing the analysis on the preconditioning survey. And like I mentioned earlier, we actually have a report drafted but it's very rough at this point. We haven't had an opportunity to discuss it between ourselves, but he did do it while I was down in L.A. and we're going to go over it and then get review from ARB and BAR and submit it to the subCommittee first, which consists of Mr. Dennis DeCota and Bruce Hotchkiss. And then we'll submit it to the full Committee at the next meeting on November 22nd.

But we did have a list of items here and my thought was to have a discussion with the Committee to see what your druthers were, if you will. For example, we do have an item here to assist with the analysis of the preconditioning survey. Review the work completed by Dr. Jeffrey Williams and finalize the comparison of the test only, test and repair, and test only. Or, I'm sorry. It should be Gold Shield stations. And then analyze the emissions impact of chronic and instantaneous unregistered vehicles. These are topics that we've been talking about for some time.

Below that I put he duty statement. There are other issues that we could look at, but I wanted to get the Committee's sense of really where they wanted to spend their resources at this point. It was a goal, at least of mine, to have a report so that we could deliver the first part of February to the legislature since February 22nd is the cutoff for new legislation. So if we hope to get anything in legislation prior to that date we'd have to have the report delivered.

CHAIR WEISSER: Any comments from Committee members before I T off? Jude?

MEMBER LAMARE: There is one, I think omission and the duties(Tape change) - statement on the initial projects for the IMRC consultant. And that is, as I recall, we did want to further analyze the consumer survey according to whether the consumer had a test only or a test and repair inspection as to consumer satisfaction. Some of our measures of consumer response so that we - we never did actually do that because the data weren't coded with the station I.D. number and whether it was a test only or a test and repair. So I would just like to add Dr. Jeffrey Williams after that and in the consumer survey to finalize comparison.

MEMBER WILLIAMS: Okay. One of the issues with regard to identifying those vehicles, we're going to have to in some form or another, reverse engineer that data set, if you will, because the contractor eliminated half of the vehicle

identification numbers when they sent us the data back. So we have vehicle identification numbers for half the data but not the other half. But we can, through the various data sets I believe, put that back together so we can finalize it.

MEMBER LAMARE: Well, let's talk about that offline.

Okay.

MEMBER WILLIAMS: You bet.

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CHAIR WEISSER: Are there other comments? You know -I'm not sure the best way to approach this Rocky. We've got a resource here that I want to exploit as best we can and I guess what I'd like you to do is to step back from what you've heard from this Committee over the last you can fill in the blank. And I'd like you to make a recommendation as to what you think the Committee's priorities ought to be in terms of using this resource and using our own time. I'm afraid that we're moving, after being very focused on certain things to get our report out and then the discussions that we've have with - you know developing our follow-up reports, we now are just becoming a little diffuse in focus. And it's helpful for our education. There's never a meeting that goes by that I don't learn a dozen new things, but I'm not sure it's helpful in terms of us focusing on where we can make a difference, the value added that this Committee can provide. And I guess I want some staff work done.

MR. CARLISLE: Okay.

CHAIR WEISSER: I want - you know - your thoughts of what's out in front, what are the options, what are your recommendations? And particularly in terms of now we have this new asset. I love referring to people as an asset. We have an extra resource. How can we best use that resource in combination with the energies that we have up here to produce a little something that might move the ball in the right direction? Okay?

MR. CARLISLE: Okay.

CHAIR WEISSER: All right. I'm not going to take any public comment on the last item. Jude?

MEMBER LAMARE: Vic, I think that's a really excellent idea and something that the Committee could benefit greatly from, to get the thinking about priorities. And in that regard, I wish that the Executive Director and our research consultant could give some thoughts to who should we compare ourselves to. We've had a report on I and M programs around the nation and we have looked at different programs. And we've seen that there's a lot of variability and certainly in terms of size. No program is anywhere near the size of the California program. And I think that we would be better off, rather than continuing to compile all the data that's available on state programs, to pick two to five programs that are most comparable to California's and just track those. That seems to me to be a more efficient use of our time, but I would like to hear more about what Rocky

and Steve think and then give us something to review in that regard. Thank you.

CHAIR WEISSER: Well, I have something else to add since we're tossing out ideas. And this is something I've mentioned a couple of times since being named on this Committee. I don't understand why we don't use the opportunity when a consumer brings a vehicle in for a smog check inspection, either test and repair or test only, why we don't use that as an opportunity for a minor, modest, low cost safety check, like to see if the lights work on the car or the brakes stop the car.

Maybe that's too complicated, but you have dynamometers. You ought to be able to see if brakes work. If you don't before you put it on the dyno, I don't want to be your insurance carrier.

I would like to know, Rocky, do other states combine safety check and I and M programs?

MR. CARLISLE: They do.

CHAIR WEISSER: What does the Highway Patrol think about safety inspections if the most basic nature is the windshield not cracked? Does brake and headlights work? Do the brakes work? You know - this is simple stuff that wouldn't add more than three minutes to a smog inspection. I don't want you to answer me right now. I want you to think -

MR. CARLISLE: No, I did have some information.

CHAIR WEISSER: Oh, okay.

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MR. CARLISLE: I have checked. I haven't gotten to a level where I feel comfortable yet, but the preliminary information I have is that in the state of California there does not appear to be a rate of accidents attributable to lack of maintenance at this point in time. It's kind of -

CHAIR WEISSER: The gentleman next to me said hard to Those words were passing through, but most of it's believe. operator error, right?

MR. CARLISLE: Correct.

CHAIR WEISSER: And those of us driving never see brake lights that don't function that don't cause us heart attack. Well, I do all the time. Those of us who drive don't see front head lights out. Well, I do all the time. I mean - what can I say? I want you to look into it.

> MR. CARLISLE: T will.

CHAIR WEISSER: Bruce.

MEMBER HOTCHKISS: I have some knowledge on that and experience in it. I spent 22 years in Canada, most of it as an automotive technician and they do safety inspections in Canada. And I know I sat in on meetings with the Ministry of Transportation there and according to their analysis, less than one half of a percent of all accidents are caused by mechanical failure. So -

MEMBER NICKEY: Reevaluate (unclear).

MEMBER HOTCHKISS: That might be more cost effective.

CHAIR WEISSER: That was a statement made by Roger and is not an official position of the Chair, nor this Committee.

Okay. Well - you know - it's possible. It's happened before that I might be wrong. But I'm still kind of curious of this and - so it really doesn't matter if you have two headlights or if your brake lights work or if your brakes work. Is that what you're basically telling me?

MR. CARLISLE: No, it's a citable offense, but years ago the CHP used to do roadside lamp inspections. But they discontinued that, as I recall, in the late '70's.

CHAIR WEISSER: Okay. Any other comments on this before - Mr. Peters?

MR. PETERS: Mr. Chairman, I'm Charlie Peters, Clean Air Performance Professionals representing a Coalition of Motorists. I'd just like or wanted to make a point of order.

Now I guess I got one to make too. First one is that I was under the understanding that each agenda item, there was an opportunity of up to three minutes comment from the audience and apparently that rule doesn't count anymore. I wanted to talk about the IMRC consultant task list and discussion.

Item number two, I believe the Committee's agenda for today, as well as the statutes requiring your participation have nothing to do with safety inspections. Just two points of order.

Want to check into the question that Charlie raised. I didn't think we were actually required to have public participation after each and every item. And in fact, I know agencies that have only one period for public participation, typically after their agenda. And if you want us to move to that model, perhaps we can. I'm right now really trying to get input on issues as we're going to take action on. So that's why I chose not to or tried to choose not to get testimony after that. Did I see hands go up somewhere else? No. No? Okay. So with that we have report topics and then we go to lunch, according to the agenda. Is there something in particular you want to raise regarding the report topics, Rocky? We talked about preconditioning?

MR. CARLISLE: We talked about preconditioning in the report that, like I said, we'll have a report next month.

CHAIR WEISSER: The two members that are dealing with program avoidance aren't here.

MR. CARLISLE: Correct.

CHAIR WEISSER: Post repair we talked about.

Standardized methodology. This was Jude's thing. You were thinking how valuable it might be for us to at least come up with an approach. Is there anything you want to talk about or share with us at this point, Jude, on that?

MEMBER LAMARE: I'm sorry, Mr. Chairman. I have a couple of times put forward a little draft.

CHAIR WEISSER: Yeah, I remember.

MEMBER LAMARE: I don't see it in the packet today. I didn't bring it with me. It's very simple and I haven't gotten any feedback from Dennis, who is the co-chair of the Committee. So I think it is time to decide for Dennis to look at that and see if he thinks it makes sense, if we're going to have a section of the report or not. I don't really care. It's just that it came up in the context of a discussion of the report and it seemed like a good idea at the time.

My concern was that we make a recommendation to the agencies that they engage in research from the consumer perspective, from the consumer's experience. We did a little demonstration of that last year. It was a small study. It seemed to me that in program evaluation you need to go to check in with the people who are going through the program and that not to do so is to leave out a whole bunch of information about how the program's working. So that was my major motivation and suggestion.

But during the course of hearings on last April, we heard a lot of suggestions about how the research is conducted and one of them — at one point I felt that we would be remiss if we did not put into writing that we thought random roadside testing needed to be done on a continuous basis and not be dropped from

the budget. And that the ongoing evaluation of the program include direct data gathering all the time, not just in these, oh, well let's now set aside some time and study it.

The fast pass proposal came forward at that time as well as something that we need to be able to get better data from our existing data collection, from the Bureau's existing data collection effort, and the fast pass is standing in the way. It's things like that where we are commenting not on the other programs running, but on how we're evaluating the program.

CHAIR WEISSER: Well, the best way I guess to move this ball forward is to put it specifically on the agenda and ask that -

MEMBER LAMARE: There is a draft.

CHAIR WEISSER: Let's - and get that into the -

MR. CARLISLE: We've - yeah, it's been in the packet a couple of times. I wasn't sure if we were going to discuss that today. It didn't get in today, obviously.

MEMBER LAMARE: And I believe that Dennis, being the other Committee member on this, needs to read it and weigh in.

CHAIR WEISSER: And Dennis has just assured me he will. And the reason that your mic isn't standing up is one of my ways of controlling Committee participation, Roger. But please go right ahead.

MEMBER NICKEY: How about a blind comment card that all of us out in the smog check world just handed the customer while

their car was being tested that they could - how's your experience? What do you think of the program? Blah, blah, blah, and they could just send it in. I wouldn't see it. Is that a valid way of collecting data?

CHAIR WEISSER: It collects data. We have surveying, sampling experts that will tell you, I'm sure, that the people who tend to send those in are motivated for one reason or another. So you get segment of the population sending those cards in who tend not to be reflective of the whole population, but they still provide you with valuable information. Because if they're happy enough, as I was when I had my smog check done recently, or unhappy enough to send in, they're not the broad middle of the public who basically say, oh, God. I had to do this crap again. Well, I got through it. Don't worry about it for two more years. But to me that - you know - that's a cheap way of getting feedback, so I think that's a heck of an idea. Any other comments from the Committee? Is there a comment back there, Mr. Gould?

MR. GOULD: I do have a comment that why don't we provide consumers - I'm sorry.

MR. CARLISLE: Don't start the timer.

MR. GOULD: Steve Gould. The BAR used to - what? The BAR used to run a consumer satisfaction survey and I don't know if they're still doing it. Are they, Alan? That's the

equivalent of what you were suggesting because it really did give consumers a card and say mail it in. So it's there.

CHAIR WEISSER: We have a member of BAR, part of consumer affairs, who -

MR. COPPAGE: Alan Coppage, Bureau of Automotive

Repair. Just for clarification, that consumer survey card is

associated with the complaint mediation process -

CHAIR WEISSER: Yeah.

MR. COPPAGE: - as a result of how well the mediation went for consumers. Just for clarification's sake.

CHAIR WEISSER: All right. I'm still kind of attracted to the notion that Roger put forward. I think that's something that you guys might want to think about. You don't even have to give it to the consumer. What you could do is you could do it to each of the - piles of them to each of the stations and the stations can hand it to the consumer. Whatever. Jude.

MEMBER LAMARE: Well, you'll recall that our consumer survey was focused on failed vehicle owners and I think you could get a lot of data from people who are just zipping through smog check and it won't really tell us much about how the program's working because what we're concerned about is the failed vehicle owner experience. And particularly on these decisions about getting it fixed, and how long it took, and how much they paid, and so on.

CHAIR WEISSER: Okay. With that folks, I'm just going to open it up to our normal public comment period and ask folks to share whatever thoughts they might have. And I'll ask Mr. Peters to go first.

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Mr. Chairman, Committee, my name is Charlie Peters, Clean Air Performance Professionals representing a Coalition of Motorists. Back at the start of your evaluation for your report to the legislature, I provided you a document. The document, one of the things on it for your evaluation was cars that slipped by like U-haul, Safety Clean, and the zip codes that aren't matched. After an interesting process I came across a report from the Air Resources Board indicating there were 1.43 million of those daily rental trucks in California, what percentage of the fleet of trucks in California is that. And then we're talking about what he report was about was the out of state plated California used vehicles. And then of course, the other part of that is the California plated zip coded out of the area so they don't have to get a smog check, which wasn't discussed at all. So maybe that's another 1.43 million cars. I don't know, and then how about the rest of the truck fleet? Since we're talking about this little segment, how about the rest of the truck fleet? And how about the rest of the cars? So are we talking about ten million cars, Mr. Weisser? I don't know. I think it's appropriate for the Committee to find out if in fact we've got a whole bunch of

people escaping this program, a huge reduction in emissions available if anybody cared. And I think it's appropriate for the Committee to give that some consideration. We have cars with out of state plates. We have cars that are plated in California, registered in Chicago, Nevada, the far corner of California that don't get a smog check ever. And it doesn't appear as though you, Mr. Chairman, and this Committee gives one damn about that, but you certainly give a damn about trying to get every shop in the state to pay \$4000 for a piece of equipment that won't do a damn thing.

MEMBER WILLIAMS: Mr. Peters, could I ask you a question on your casual empiricism of driving here today, how many out of state drivers did you see on the road?

MR. PETERS: I wasn't paying any attention to that. Probably, just as a guess, probably 50, 100.

MEMBER WILLIAMS: Out of how many? At what percent?

MR. PETERS: I did not survey it, Dr. Williams.

MEMBER WILLIAMS: Maybe under one in 100, probably, right?

MR. PETERS: There's 1.43 million daily rental trucks that are under that (unclear). (overlapping)

MEMBER WILLIAMS: I doubt that very much. If there are 25 million registered vehicles in the state of California, that would be about one in every twenty cars one passes on the road is a rental truck. That doesn't sound right.

MR. PETERS: According to this report that I have in my hand that says it's from the Air Resources Board, that's what it says.

CHAIR WEISSER: And it says -

MR. PETERS: You might contact them and ask them about their data. That supposedly came from the Department of Motor Vehicles, sir.

MEMBER WILLIAMS: I'm suspicious of that and as I mentioned to you, the out of state registration that a California registration cannot be more than about 200 thousand, if that, out of 25 million. I think we're talking about relatively small numbers. Actually, I'm not saying we shouldn't pay attention to them but I don't think they're that big.

MR. PETERS: I just say that somebody ought to take a look at it and I think that that data ought to be available from the remote sensing and so on. There ought to be a way of looking at that.

CHAIR WEISSER: And I have a recollection of Mr.

Cacette (phonetic) talking about that with this Committee a couple years ago where he had indicated that the percentage of rental trucks was minute, as you were saying, Jeffrey. I'm trying to remember about what time it was so we could - you know - direct you to look at that transcript that might have more numbers. I don't know what you're waiving in your hand,

Mr. Peters, in terms of a study, if that's the ARB numbers.

That's what you're -

MR. PETERS: That's the report that I provided to the Committee and when you were here as chair, I believe, sir.

CHAIR WEISSER: And perhaps what you might -

MR. PETERS: And it's on the record, sir.

CHAIR WEISSER: What you might want to do is check with Sylvia to show her the data that you're indicating is in the report and follow up in terms of that data set. Thank you very much, Mr. Peters. Mr. Ward.

MR. WARD: Mr. Chair, Committee members. Dr. Lamare, I think you were very much on point that the roadside data is absolutely necessary. There needs to be something with regard to fast pass. I certainly understand that from an economic perspective the shop owners need to have fast pass, but there ought to be some ability to statistically analyze complete tests so that that data is available.

And secondly, I think - you know - rather than complain - I mean - there are opportunities here even in light of the economic environment that all shops are facing, both test only and test and repair. And I think one of the things that I saw as a bright light, and certainly my people are using it to their advantage to try to think conceptually about how the market as an industry, is Dr. Lamare's consumer survey. I think it was an excellent job. This Committee spent a lot of time going over

each and every one of the questions to that they were thoughtful, and I think she assembled it, and I think it was done with the correct hypothesis from the get go. And it's been very, very helpful, at least to my segment of the industry. So I want to thank you for that. And I guess my question would be how are you distributing that consumer survey?

CHAIR WEISSER: Rocky, can you respond to Mr. Ward's question regarding its distribution?

MR. WARD: Thank you.

MR. CARLISLE: Yes, the distribution went to basically all interested parties, the legislature, and the Governor's office. So there was about 120 copies to the legislature plus the Governor.

CHAIR WEISSER: I think we learned a lot through doing that survey in terms of the thought process that we as a Committee have to go through to really be sure what we're trying to find out and then try to model questions that will actually elicit data, try to structure those questions in a way that's fair. I've never yet seen a survey that everyone has agreed with in terms of how the questions are asked and what - but I do think we did pretty well for at least novices as a Committee in terms of defining what we wanted to find out. Yet, there are areas that we would like to see follow-up and I think we need to highlight those areas to the agencies and to ourselves for future follow-up.

Any further comments from the audience on any old thing?

Outcome of the World Series? No? Okay. Anything further from the Committee? Roger, is your sign up or is that just the auger kicking in?

MEMBER NICKEY: No, I've learned to put it up real quick.

CHAIR WEISSER: Okay.

MEMBER NICKEY: Just a quick comment on the fast pass thing. I'm very familiar with what a huge pain it is to eliminate fast pass for those of us who do a lot of testing, but I might just suggest it could be done on a rolling basis. If I only had to put up with it for two or three days or a week, I could live with it for the statistical data if it provides useful information. But gosh, to give it up for a month or six months, it hurts because it does extend the test, believe me, about a net five minutes.

CHAIR WEISSER: Okay. With that, I think our next meeting is Tuesday, November 22nd, which is the 44th anniversary of the slaying of Jack Kennedy, I believe. And until that auspicious date, I will bid everyone here a fond ado. The meeting is adjourned.

MEETING ADJOURNED -

TRANSCRIBER'S CERTIFICATION

This is to certify that I, SUSANNE HUTCHISON, transcribed the tape-recorded public hearing of the Bureau of Automotive Repair dated October 26, 2005; that the pages numbered 1 through 185 constitute said transcript; that the same is a complete and accurate transcription of the aforesaid to the best of my ability.

Dated November 7, 2005.

Susanne Hutchison, Transcriber Foothill Transcription